

**FEDERAL RESERVE'S FIRST MONETARY POLICY
REPORT FOR 1996**

Y 4. B 22/3: S. HRG. 104-458

Federal Reserve's First Monetary Po...

HEARING
BEFORE THE
COMMITTEE ON
BANKING, HOUSING, AND URBAN AFFAIRS
UNITED STATES SENATE
ONE HUNDRED FOURTH CONGRESS

SECOND SESSION

ON

OVERSIGHT ON THE MONETARY POLICY REPORT TO CONGRESS PURSU-
ANT TO THE FULL EMPLOYMENT AND BALANCED GROWTH ACT OF
1978

FEBRUARY 21, 1996

Printed for the use of the Committee on Banking, Housing, and Urban Affairs



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FEDERAL RESERVE'S FIRST MONETARY POLICY REPORT FOR 1996

WEDNESDAY, FEBRUARY 21, 1996

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
Washington, DC.

The Committee met at 10:10 a.m. in room 538 of the Dirksen Senate Office Building, Senator Alfonse M. D'Amato (Chairman of the Committee) presiding.

OPENING STATEMENT OF CHAIRMAN ALFONSE M. D'AMATO

The CHAIRMAN. Good morning, Chairman Greenspan. It's good to see you.

Chairman GREENSPAN. Thank you. Good morning.

The CHAIRMAN. I'm pleased to welcome you here to discuss the Federal Reserve's semiannual monetary policy report.

I have extended remarks that go for a number of fully type-written pages, but I want to save some time so that we can hear from you, Mr. Chairman.

I'm going to ask that my remarks be placed in the record as if read in their entirety.

I also want to commend you for your able stewardship because we have come through some very rough waters and notwithstanding our own inability, that being the Congress and the Executive, to do its business in a manner that would strengthen the economy, I think you've done admirably well.

I think our failure to come to a budget accord has not helped the situation out, has created instability, and I say our failure because we have not been able to accomplish it.

There are no miracles unless we get the deficits under control with a program that is realistic, not one that is manufactured, which is not one which is back-loaded with cuts in the last several years of a projected program to bring the deficit into balance, it seems to me that regardless of who sits in your chair, the job is never going to be done adequately and properly.

I think sometimes we place too much attention at one end and fail to recognize that without there being the kind of action necessary to reduce the deficits and to get spending programs which are growing at a disproportionate rate, at a rate that cannot be practically sustained, that we're never going to really have the kind of success that we could have.

So the responsibility, in great measure, large measure, rests with Congress and the White House.

That's my thought. I've asked that my statement be included in the record as if read in its entirety.

I want to congratulate you for operating under very difficult circumstances.

Senator Sarbanes.

OPENING STATEMENT OF SENATOR PAUL S. SARBANES

Senator SARBANES. Thank you, Mr. Chairman, and I join you in welcoming Alan Greenspan, the Chairman of the Board of Governors of the Federal Reserve before the Committee for the semi-annual report on monetary policy as required by the Full Employment Balance Growth Act of 1978.

Since the middle of last year, the middle of 1995, the Federal Open Market Committee has cut the benchmark Federal funds rate by $\frac{3}{4}$ of a percentage point from the mid-year peak of 6 percent to a current level of 5.25 percent.

While this has reversed somewhat the steep increase in interest rates that consumed the attention of the Federal Reserve throughout 1994 and into early 1995, I still regard this as unfinished business.

At the beginning of February, Merrill Lynch, under the heading "Monetary Policy More Easing Ahead" had the following to say:

Having met market expectation and eased monetary policy on January 31, we believe that the Fed still has several more rounds of easing to go. Even after the latest easing—I'm continuing to quote—we believe the monetary policy remains overly restrictive. At the moment, consumer spending is barely growing, the industrial sector is at a standstill, and despite lower mortgage rates, home sales are slipping.

GDP grew by only around 1.5 percent during 1995 and we doubt that it is growing faster than at a 1-percent rate in the current order, and it could be weaker. That is well below anyone's estimate of U.S. non-inflationary growth potential.

Meanwhile, the CPI rose just 2.5 percent during 1995 and industrial commodity prices declined.

Now even with the latest interest rate cut, the real Federal funds rate is currently $2\frac{3}{4}$ percent, well above the historical average of 1.85 percent as this chart would demonstrate.

This is the Fed funds, this is the 40-year average, 1.9 percent. The current is 2.8 percent. This is the prime rate for the 40-year average of 3.4 percent and is currently 5.8 percent.

The gap between the Federal funds rate and the prime rate has expanded over recent times. It used to run at about 2 points, or less than 2 points. It's now running at about 3 points, almost in tandem. This is a 5.8 percent real prime rate. The 40-year average on the prime rate is 3.4 percent, and of course the prime rate is the rate at which the lending from the banks takes place, now much higher than the historical average.

In fact, the real rates are not much lower than they were last year when the Fed completed its year-long tightening. Much of the $\frac{3}{4}$ point decline in the Federal funds rate simply reflects a lower inflation. It was running last year at 3 to $3\frac{1}{4}$ points. It's now at 2.5 points, and that's about the change in the fund rates.

The decline actually just about matches two declines in inflation and the Federal funds rate.

There's evidence that the rate cuts thus far are having little practical effect on the economic outlook. On February 10, the Blue Chip Economic Forecasters cut their consensus outlook for GDP by two-tenths of 1 point. They are now projecting 2 percent growth for this year.

The recent survey of consumer expectations, done by the University of Michigan Survey Research Center, released on February 9, found that the recent interest rate cuts will have little impact from the consumer's point of view.

I quote them:

The recent cuts are likely to have an even smaller impact on bolstering job and income prospects, the most important concern amongst consumers at the present time. While consumers do not expect an outright recession, there's ample evidence that they are becoming increasingly concerned that the recent slowdown in the pace of economic growth will persist during the year ahead.

The survey also found that consumers expect the unemployment rate to rise this year.

It would seem that with the economy on the soft side, 2 percent growth projected for this year and unemployment now at 5.8 percent, that we would be able to absorb stronger growth for monetary stimulus without an inflation problem.

In fact, the University of Michigan's Survey of Consumers states, and I quote:

Importantly, the data suggests that some further lowering of interest rates to stimulate demand would not cause consumers to abandon their resistance to price increases and product markets, nor escalate their demands for wage increases in labor markets.

Yesterday marked, and I'll close with this observation, the 50th anniversary of President Truman signing the Employment Act of 1946. That committed the Federal Government, "To use all practicable means for the purpose of creating and maintaining conditions which promote useful employment opportunities for those able, willing, and seeking to work."

In fact, for 50 years, following this commitment, we have succeeded in stabilizing the business cycle.

I just want to close with this chart that shows the dramatic difference between the downturns of the last half century before the Employment Act, and what's occurred since.

This is the Depression of the 1930's. This was just at the end of the World War II period before the Employment Act, and this is what we've managed to do in the past 50 years.

We've avoided these very wild fluctuations and have managed to sustain the economy almost completely in a positive growth mode.

We've gone negative only on a couple of occasions, and then by very small margins.

I think a concentrated use of fiscal and monetary policy has enabled us to achieve that performance, and I'm very anxious that we continue to do so.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Mack.

OPENING STATEMENT OF SENATOR CONNIE MACK

Senator MACK. Thank you, Mr. Chairman.

Welcome, Chairman Greenspan.

When you became Chairman of the Federal Reserve Board in August 1987, the price of gold was \$461 per ounce, and 30-year Treasury bond yields were almost 9 percent. Today gold prices are down to \$400 an ounce and 30-year Treasuries are under 6.5 percent.

In my view, the reason gold prices and bond yields are down is because inflationary expectations are down.

In the past 5 years, your oversight of monetary policy has kept inflation below 3 percent.

Mr. Chairman, that is an extraordinary record. The numbers speak for themselves, and many Americans have benefited. With mortgage rates down, many people have purchased their first homes and even more have refinanced at lower rates.

Your management of monetary policy toward price stability has yielded tremendous results, and you can be proud of that record.

However, in recent months, with signs of weakness in the economy, it has become commonplace to blame the Federal Reserve for slow growth. The President and other critics of the Federal Reserve Board refuse to look at the impact of fiscal policy on economic growth.

Increases in taxes, regulation, and Government burdens during President Clinton's administration have slowed the potential growth in the economy.

Job growth, income growth, and opportunity have all suffered as this recovery continues to under perform.

Let's set the facts straight on growth. I will stand second to none in my support of policies which enhance economic growth.

Let me be clear. Economic growth does not come from appointing easy money advocates to the Fed. If it did, counterfeiting would be legal.

Real growth comes from entrepreneurial activity, savings and investment. The way to increase these activities is to free the economy from the handcuffs of Government.

We must cut taxes, reduce spending, and slash regulation.

For these reasons, I've introduced the Economic Growth and Price Stability Act. This bill is designed to maximize economic growth. The Federal Reserve can best maximize economic growth by keeping prices stable. Any attempt to use the Federal Reserve to boost growth always results in higher interest rates, more inflation, less employment and slower growth over the long run.

I know you understand this, and I urge the President to renominate you as quickly as possible.

I'm looking forward to your testimony today.

Thank you, Mr. Chairman.

The CHAIRMAN. Senator Faircloth.

OPENING STATEMENT OF SENATOR LAUCH FAIRCLOTH

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Just very briefly, Mr. Chairman, I wanted to make the following point in reaction to the President's statement about Republican Senators blocking certain people from the Federal Reserve Board.

The President will soon make two and possibly three appointments to the Federal Reserve Board. In making these appointments, I hope he will remember his own phrase about the era of big Government is over, and that does mean, however, that the era of easy money has arrived.

The Congress can appropriate money. Congress and the Treasury can borrow money. The Federal Reserve has the power to create money. This is an awesome power and it should be delegated carefully.

For this reason, I think the Senate has every right to be very cautious about who gets on the Board, and who may, in 8 or 12 years from now, become chairman.

I want to compliment you on the job you've done.

The CHAIRMAN. Senator Gramm.

OPENING COMMENTS OF SENATOR PHIL GRAMM

Senator GRAMM. Thank you, Mr. Chairman.

Let me make a few remarks, building on the remarks of my colleagues.

No. 1, when I read about economic growth in the press, the attitude of many is almost as if we choose economic growth with no sacrifice, with no change in policy required. It's almost as if we could simply have someone somewhere, in the White House, the Congress, the Federal Reserve Board, on Wall Street, say, "well wouldn't it just be a great idea to have 4 percent economic growth?"

In that light, if we could have growth by wishing it, I don't know what idiot decided we should have 1.5 percent economic growth, and all we need to do is have somebody decide that it would be better to have higher growth.

It seems to me that it's very important that we knock that kind of thinking in the head and make it clear that if you want to have higher growth, you have to do the hard things that are necessary in order to have it. You have to have a stable monetary policy. You have to have low interest rates. You have to have something approaching a balanced budget. You have to lift the regulatory burden. You have to reduce taxes to provide incentives, and that requires positive Government leadership. It means saying no in Washington so that people that make investment decisions can say yes.

I see almost a total absence, to some extent in both parties, of any discussion of these realities.

Let me also say one thing about inflation and interest rates. I think we all have to be very careful that we not take any action that would in any way convince the financial markets that we had lost our commitment to controlling inflation, because if we do, interest rates will spike, and the deficit is going to explode. The impact on the fiscal policy of the country of a weakened resolve to fight inflation would be cataclysmic.

The final point I want to make I want to pose as a question.

Obviously I have listened to you, Alan, for quite a few years, talk about the deficits. I know you understand they matter, and that, in the short run, there's something that we need to do about them. It seems to me that one of the things that many policymakers have

a hard time focusing on is just how seriously we should take the projections of what the deficit and what the Government will look like 20 years from now.

I know that probably more than anyone else in the country you, as Chairman of the Federal Reserve Board, have taken a good, hard look at what happens 20 years from now if you take the current growth rate that is built into the Government, in what we have already committed to, and you project that out for 20 years, and you look at the kind of tax rate that that would call for. You understand the ability of the economy to sustain tax rates of that level.

You have to reach a conclusion that that's a future that can't be, that that's a future that won't be. The question is, what's going to change it?

One of the things that I'd like to get your views on in your testimony today is, just how seriously should we take that kind of analysis, of looking at economic trends projected 20 years from now? Should that be something that we should be focused in on, that we should be trying to make decisions about today? Should our focus just be on the next 5 to 7 years? How seriously should we take that long-term problem?

From my own point of view, I take it very seriously, because I think it shows that we have to make a fundamental decision as to what kind of country we want.

I don't see much evidence that those decisions are being made. I'd like at least to get your thoughts about looking at some of these projections.

The President has used generational accounting. I see a lot of problems with that. I think if you look at current services government, no new programs, just funding what we already have, when you look at a generation, 20 years, and you look at the kind of tax burden that would be required to fund that government, it looks to me as if that is a very severe problem. It is a problem that nobody appears to be addressing, and it seems to me it ought to be one of our concerns.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Alan, now we look forward to hearing from you.

STATEMENT OF ALAN GREENSPAN, CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

Chairman GREENSPAN. Thank you very much, Mr. Chairman.

I have a rather long official presentation, and have taken the liberty of making major deletions but request, however, that the full transcript be included in the record.

Mr. Chairman and Members of the Committee, it's always a pleasure to appear before you to present the Federal Reserve's semiannual report on monetary policy.

The United States' economy performed reasonably well in 1995. One and three-quarter million jobs were added to payrolls over the year, and the unemployment rate was at the lowest sustained level in 5 years. Despite the relatively high level of resource utilization, inflation remained well contained with the consumer price index rising less than 3 percent—the fifth year running at 3 percent or

below. A reduction in inflation expectations, together with anticipation of significant progress toward eliminating Federal budget deficits, was reflected in financial markets, where long-term interest rates dropped sharply and stock prices rose dramatically over the year.

With inflation contained and inflation expectations dropping, the Federal Reserve was able to ease monetary conditions twice in the second half of the year.

As we entered 1996, information becoming available raised additional questions about the prospective pace of expansion.

The situation was difficult to judge, but several indicators appeared to signal some softening in the economy. A number of factors have prompted the recent tendency toward renewed weakness. Some are clearly quite transitory, related, for example, to bad weather or the Federal Government shutdown. Others may be somewhat more significant but still temporary. A constraint on Government spending while permanent budget authorizations are being negotiated is one. Another may be a temporary reduction in output in some industries as businesses have further adjusted inventories to disappointing sales. As I noted last July, the change in the pace of inventory investment when the economy shifts gears can be substantial. Inventory investment surged in 1994 and into the early months of 1995, but proceeded to fall markedly throughout the rest of the year. This has placed significant downward pressure on output, which should lift as inventory adjustments subside. But for the moment, the pressures remain, in the motor vehicle industry and elsewhere.

Ultimately, of course, it is the path of final demand, after the temporary influences work themselves out, that determines the trajectory of the economy. There are some factors, such as high consumer debt levels, that may be working to restrain spending. But as I shall be detailing shortly, a number of fundamentals point to an economy basically on track for sustained growth, so any weakness is likely to be temporary.

Nonetheless, the Committee decided in late January that the evidence suggested sufficient risk of subpar performance going forward to warrant another slight easing in the stance of monetary policy. Given the subdued trends in costs and wages, the odds that such a move would boost inflation pressures seemed low.

In assessing the likely course of the economy and the appropriate stance of policy, one question is the significance, if any, of the age of the business expansion. Some analysts, viewing recent weakness, have observed that the expansion is approaching the start of its sixth year and is now one of the longer peacetime spans of growth in the past half century. Economic expansions, however, do not necessarily die of old age. Although the factors governing each individual business cycle are not always clear, expansions usually end because serious imbalances eventually develop.

When aggregate demand exceeds the economy's potential, for example, inflationary pressures pick up. The inevitable increase in market interest rates, as inflation expectations rise and price pressures intensify, depresses final demand. Lagging demand in turn sets off an inventory correction that frequently triggers a downturn in the economy.

Capital expenditures by households and firms can also contribute significantly through the development of cycle-ending imbalances. The level of stocks of such real assets have effects on output very similar to those of business inventories. In typical cycles, capital expenditures tend to grow rapidly in the early stages of recovery. Pent-up demands coming out of a recession by consumers and businesses are satisfied by rapid growth of spending on capital assets. There is a limit, however, on, say, how many cars people choose to own or how many square feet of floor space retailers need to service customers. Spending on such assets generally tends to grow more slowly after the pent-up demand is met. As with business inventories, downshifting of spending on consumer durables or business plant equipment may not occur smoothly.

The dynamics of expanding output and rising profit expectations often create a degree of exuberance which, as in much of human nature, tends on occasion to excess—in this case, in the form of a temporary over-accumulation of assets. The ensuing correction and demand for such assets triggers production adjustments that can significantly mute growth for a time or even cause a downturn if the imbalances are large enough.

The current extent of any asset overhang is difficult to determine. Growth of demand for durables in some categories of capital goods evidently has slowed. But the available evidence does not suggest a degree of saturation in capital assets that would tip the economy into a downturn.

Moreover, financial conditions are likely to be generally supportive of spending. The low level of long-term interest rates should have an especially favorable effect. In addition, with the condition of most financial institutions strong, lenders are likely to remain willing to extend credit to firms and households on favorable terms.

Against this background, the Federal Reserve policymakers expect the most likely outcome for 1996 as a whole is further moderate growth. The unemployment rate is expected to remain around recent levels.

The Federal Open Market Committee also anticipates a continuation of reasonably good inflation performance in 1996. The success during 1995 in keeping the increase in the consumer price index below 3 percent in the fifth year of an expansion illustrates that an extended period of growth with low inflation is possible. Keeping inflation from rising significantly during economic expansions will permit a gradual ratcheting down of inflation over the course of successive business cycles that will eventually result in the achievement of price stability.

Determining whether further changes to the stance of monetary policy will be necessary in the months ahead to foster progress toward our goals will be a continuing challenge. In formulating monetary policy, while we have in mind a forecast of the most likely outcome, we must also evaluate the consequences of other possible developments. Thus, it is sometimes the case that we take out monetary policy "insurance" when we perceive an imbalance in the net costs or benefits of coming out on one side or the other of the most probable scenario. For example, in our most recent actions, we saw a decline in the Federal funds rate as not increasing inflationary risks unacceptably while addressing the downside risks to

the most likely forecast. In assessing the costs and benefits of adjustments to the stance of policy, Members of the Committee recognize that policy affects the economy and inflation with a lag, and thus needs to be formulated with a focus on the future. Over the past year, we have kept firmly in mind our goals of containing inflation in the near term, and moving over time toward price stability, and they will continue to guide us in the period ahead.

Structural forces may be assisting us in this regard. Increases in producers' costs and output prices proved to be a little lower last year than many had anticipated. While it is too soon to draw any definitive conclusions, this experience provides some tentative evidence that basic on-going changes in the structure of the economy may be helping to hold down price increases. These changes stem from the introduction of new technologies in a wide variety of production processes throughout the economy.

The more rapid advance of information and communications technology and the associated acceleration in the turnover of the capital stock are being mirrored in a brisk restructuring of firms. In line with their adoption of new organizational structures and technologies, many enterprises are finding that their needs for various forms of labor are evolving just as quickly. Partly for that reason, most corporate restructurings have involved a significant number of permanent dismissals.

An important consequence of the layoffs and dismissals associated with restructuring activity is a significant and widely reported increase in the sense of job insecurity. Concern about employment has been manifested in unusually low levels of indicators of labor unrest. Of particular relevance to the inflation outlook, a sense of job insecurity is having a pronounced effect in damping labor costs. For example, the increase in the employment cost index for compensation in the private sector, which includes both wage and salary payments and benefit costs, slowed further in 1995 to 2¾ percent despite labor market conditions that by historical standards were fairly tight.

The more rapid pace of technological change is also reducing business costs through other channels. Initially most important, the downsizing of products resulting from semiconductor technologies together with the increasing proportion of national output accounted for by high-tech products has reduced costs of transporting the average unit of the gross domestic product. Quite simply, small products can be moved more quickly and at lower cost.

More recently, dramatic advances in telecommunications technologies have lowered the costs of production for a variety of products by slashing further the information component of those costs. Increasingly, the physical distance between communications endpoints is becoming less relevant in determining the difficulty and cost of transporting information.

To be sure, advancing technology, with its profound implications for the nature of the economy, is nothing new and the pace of improvement has never been even. But it is possible that we may be in the midst of a quickening of the process. Nonetheless, we do have to be careful in projecting a further acceleration in the application of technology indefinitely into the future. Similarly, suppressed wage cost growth as a consequence of job insecurity can be

carried only so far. While it is difficult to judge the timeframe of such adjustments, the risks to the cost and price inflation going forward are not entirely skewed to the downside, especially with the economy so recently operating at high levels of resource utilization.

In light of the quickened pace of technological change, the question arises whether the United States' economy can expand more rapidly without adding to inflationary pressures. The Federal Reserve would certainly welcome faster growth provided that it is sustainable.

The particular rate of maximum sustainable growth in an economy as complex and ever-changing as ours is difficult to pin down. Fortunately, the Federal Reserve does not need to have a firm judgment on such an estimate for persistent deviations of actual growth from that of capacity potential will soon send signals that a policy adjustment is needed. Should the Nation's true growth potential exceed actual growth, for example, the disparity and lessened strain would be signaled in shorter lead times on the delivery of materials, declining overtime and ebbing inflationary pressures.

Conversely, actual growth in excess of the economy's true potential would soon result in tightened markets and other distortions which, as history amply demonstrates, would propel the economy into recession.

The hypothesis that advancing technology has enhanced productivity growth would be more persuasive if national data on productivity increases showed a distinct improvement. To a degree, the lack of any marked pickup may be a shortcoming of the statistics rather than a refutation of the hypothesis. Faulty data could be arising in part because business purchases are increasingly concentrated in items that are expensed but which market prices suggest should be capitalized. In addition, the output of services—and the productivity of labor in that sector—is particularly hard to measure.

There is still a nagging inconsistency: The evidence of significant restructurings and improvements in technology and real costs within the business establishment does not seem to be fully reflected in our national productivity measures. It is possible that some of the frenetic pace of business restructuring is mere wheel spinning, changing production inputs without increasing output, rather than real increases in productivity. One cause of wheel spinning, if that is what it is, may be that it takes some time for firms to adapt in such a way that major new technology is translated into increased output. It may be that the full advantage of even the current generation of information and communication equipment will be exploited over a span of a few years, and only after a considerably updated stock of physical capital has been put in place.

To be fully effective in achieving potential productivity improvements, technological innovations also require a considerable amount of human investment on the part of workers who have to deal with these devices on a day-by-day basis. On this score, we still may not have progressed very far. Many workers still possess only rudimentary skills in manipulating advanced information technology. In these circumstances, firms and employees alike need to recognize that obtaining the potential rewards of the new tech-

nologies in the years ahead will require a renewed commitment to effective education and training, especially on-the-job training.

Our Nation faces many important and difficult challenges in economic policy. Nonetheless, we have made significant and fundamental gains in macroeconomic performance in recent years that enhance the prospects for maximum sustainable economic growth. Lower rates of inflation have brought a variety of benefits to the economy including lower long-term interest rates, a sense of greater economic stability, an improved environment for household and business planning, and more robust investment in capital expenditures.

We have also made considerable progress on the fiscal front. Over the past 10 years, and especially since 1993, our elected political leaders, through sometimes prolonged and even painful negotiations, have been successful in reaching several agreements that have significantly narrowed the budget deficit. But more remains to be done. As I have emphasized many times, lower budget deficits are the surest and most direct way to increase national saving. Higher national saving would help to reduce real interest rates further, promoting more rapid accumulation of productive capital embodying recent technological advances.

Lower inflation and reduced budget deficits will by no means solve all of the economic problems we face, but the achievement of price stability and Federal budget balance or surplus will provide the best possible macroeconomic climate in which the Nation can address other economic challenges.

Thank you very much.

The CHAIRMAN. Well thank you, Mr. Chairman.

I was going to ask you to summarize, with some particularity, what would the impact be on the economy, if we ever could bring about a budget accord or balanced budget between the Congress and the President. But you summarized that.

With particularity in regard to interest rates. We hear so much about interest rates and people clamor at you about interest rates.

If we could put aside the political posturing, and get a balanced budget, that would be sustained by CBO as being achievable, one that is credible, what impact would that have on interest rates and inflation in your opinion?

Chairman GREENSPAN. Mr. Chairman, as I've indicated many times in the past, the significant decline in long-term interest rates over the past year and a half, has been, to a very significant extent, the result of the financial markets' perception that something real with respect to balanced budget programs would be initiated.

There's been over the years a very significant degree of skepticism in the financial community that much of what has been passing as fiscal policy directed at budget balance has been smoke and mirrors.

That clearly changed last year. With some reluctance, I perceived that the markets, or more exactly, the people within the markets, began to realize that perhaps something was changing, as indeed I think it has. The culture is very obviously changing and if for no other reason, one need only look at how effective the "paygo" issue in the budget process has become, even though a majority of the Congress could readily overthrow it.

I also said, in response to similar questions, that in the event that the significant move toward budget balance fails, part of the decline that has occurred in anticipation of a successful outcome will probably be retraced, and part of the move upward in long-term interest rates over the last week or so has basically reflected some concern in that direction.

If, however, further progress toward getting a credible program is made which the markets will perceive as real efforts in the direction of budget balance, and which are not just hopeful statements of where we wish to be, but give the type of specificity and program changes which would be difficult to change in subsequent years, my suspicion is that we will find that long-term rates will fall significantly further.

That clearly is the crucial statistic in the current environment which could be most positive to economic growth. We estimate that perhaps two-thirds or more of the overall interest rate effect on the economy comes from changes in longer-term rates because obviously they impact mortgage rates and a number of rates in the private sector where capital investment is involved.

So there's nothing that I could see which would be, in the short run, more important to galvanize economic growth than to come to an effective credible agreement on reaching budget balance within a reasonable period of time.

The CHAIRMAN. Do you believe the marketplace is already beginning to sense that notwithstanding a change in attitude for the better, as it relates to more Members of the Congress on both sides seeing the importance of bringing about a balanced budget, do they sense that once again we may hit an impasse, and that this then would create some instability and also have an adverse impact in terms of higher interest rates long term?

Chairman GREENSPAN. I think the answer to your question is generally yes. Nonetheless, I think that what still appears to be in place is the view within the market that commitments toward significant reductions in budget deficits are still on the table in the White House and in the Congress, and so we have not had, and I don't think we will have unless there is a dramatic reversal of this whole process, a really major rise in long-term interest rates because of failure to come to grips with this particular issue. But I do think that the clear ebbing of the efforts and the rhetoric to solve this problem is beginning to have some marked effects as doubts are beginning to rise. I don't think they have risen to the level where they are as yet serious but they could.

The CHAIRMAN. That would be unfortunate.

Chairman GREENSPAN. Most certainly.

The CHAIRMAN. If we lose this opportunity to continue to really bring about a goal of achieving it I think would be an absolute tragedy.

Chairman GREENSPAN. I agree with that, Mr. Chairman.

The CHAIRMAN. Senator Sarbanes.

Senator SARBANES. Chairman Greenspan, I was intrigued to read the morning papers reporting on your testimony yesterday before the House Committee.

One morning paper headlined your testimony as follows:
Greenspan Calls Economy Soft, Hints At Rate Cut.

The other one said:

Greenspan Rattles Market As Hopes for Rate Cut Dim.

One says that you're hinting at rate cut and the other one says, hopes for rate cut dim.

I know you don't like to add clarity to situations.

[Laughter.]

Senator SARBANES. It seems to me for the Chairman of the Fed to get reported upon in this virtually contradictory manner is not a good thing for public understanding of the economy or where we are or what economic, what direction economic policy is moving.

I'd ask you this morning to provide a little guidance in order to give us some sense about these contradictory reports.

Chairman GREENSPAN. Well, Senator, I obviously will not clarify it to the point where everyone will be happy. Maybe I can do a little bit in that regard.

The problem is that this is a very unusual type of period that we find ourselves. We're at the stage of a process which is one in which we have to be aware of the fact that, as I said in my prepared remarks, we are going through effectively a significant soft patch in the economy. The probabilities of our coming out and the economy doing reasonably well are, as they usually are, better than 50/50.

I say that because I think we have to understand what is on the other side of this issue, namely the question of how do we view the probabilities of recession, for example. And how would we respond to that sort of thing. The difficulty that I have with this type of question is that with extremely rare exceptions, a recession defined as some breaking of the fabric of the economy so that you get cumulative downward erosion in economic activity, that sort of situation almost at any point in time never has a more than 50 percent probability. As a consequence, you very rarely see people who have single line forecasts forecasting recessions except if they want to be seen as outliers, and usually most of the forecasts of recession turn out to be wrong.

Nonetheless, there is always a situation underlying any particular type of outlook, especially one such as now in which we are in a soft patch, when even though the probabilities of a recession don't seem likely, they do rise. That's invariably the case whenever you get a situation where you're in a soft economy.

The reason I discussed the issue in some detail in my prepared remarks with respect to taking out "insurance" is that, as a practical matter, monetary policy cannot and should not be directed at a single forecast. We do not have the capability, nor does anyone else, to be able to know with certainty precisely where the economy is going to be. What you have to do is to try to weigh the pluses and the minuses of particular policies which you could potentially make, and what the costs and benefits of those particular policies are.

As I indicated earlier, since we did not perceive that there was a significant risk of reigniting inflationary pressures, we did move, on January 31, 1996, to recognize the fact that we are in a soft patch.

Where the confusion arises is the fact that you cannot view monetary policymaking as a simple issue of deciding that the most

probable outcome is coming out of this soft patch into moderate growth with low inflation, although I think that is the most probable outcome. That is not the same statement as saying that you therefore, in the process of implementing monetary policy, or formulating it, I should say, completely disregard what the upsides and downsides of a potential outcome may be. Therefore it is conceivable, for example, that if we envisage that inflationary pressures are significantly subdued, it would not be inconsistent to move rates lower, as we did on January 31.

Or, on the other side of the outlook, if we perceived that the economy were inordinately strong, and not capable of really being affected significantly by increased interest rates, but which could very well stem inflationary pressures, we would move.

What's important to recognize is that it is a complex set of choices that we make. It's that process which we try to expound on without indicating, as we cannot, precisely where we may come out at any particular point because that can only be done by the official process which the Federal Open Market Committee has with respect to when we move, either by moving within a Committee meeting or by giving authority to the Chairman to move under certain circumstances.

Senator SARBANES. I see my time's up, and I'll pursue it on the next round.

The CHAIRMAN. Senator Mack.

Senator MACK. Mr. Chairman, I'm going to, I want to ask an academic question but I want to ask something else first.

In 1995, real GDP expanded at less than 1.5 percent.

In 1996, your forecast is for only 2 percent real growth.

This would represent the slowest 2-year period of growth without a recession in the U.S. economy since 1956-57.

In your opinion, why is growth so slow?

Chairman GREENSPAN. Basically, it is slow because we have come out of the 1994 period when the economy was moving at a fairly impressive pace and pressing resources, as I indicated in my prepared remarks, and once you get up to where you're running up against capacity, there is clearly a tendency to start to back off to a certain extent.

In the last numbers of months we were growing at clearly less than potential. One need only look at the operating rates, for example, in manufacturing to basically see that. That is part of the normal rhythm of the business cycle and the expectation that one will be at some firm growth rate for any protracted period of time, whether it be high, low, or moderate, doesn't properly reflect the complexity that the economy of our country has.

So it's not easy to answer very specifically unless you want to look at the details of what's causing it. As I indicated in my prepared remarks, the actual technical reason is that the rate of inventory investment has been falling very dramatically from an unsustainably high level in the latter part of 1994 and early 1995 to something very significantly less the last few months.

Senator MACK. If we reduced the deficits, reduced taxes, and reduced regulations, would we experience more growth in the economy?

Chairman GREENSPAN. I think over the longer run, the answer is yes because those factors do have positive impacts on the longer run.

I would hesitate to argue its short-term impact because far more likely to affect the short-term economic outlook is the behavior of inventory investment, and, as I indicated in my prepared remarks, capital expenditures by both business and households.

Senator MACK. But if you had smaller deficits moving toward a balance long-term interest rates lower——

Chairman GREENSPAN. That would sustain capital investment yes, certainly.

Senator MACK. Which would, in essence, increase the level of growth?

Chairman GREENSPAN. Yes. The only reason I hesitate to answer directly is in the short run, there are other forces which will be far more dynamic than that, but there's no question, Senator that maintaining direction of lower budget deficits and a return to lower long-term interest rates will galvanize housing and capital investment in a manner which would sustain maximum long-term growth.

Senator MACK. Let me go back to raising a question about monetary policy. And as I say, this may be kind of asked from an academic perspective.

Through the first three quarters of last year, the economy grew 4.2 percent, that is, 2.8 percent inflation plus 1.4 percent real growth.

If somehow the United States was able to change its potential real growth rate to 4 percent, would monetary policy need to change?

Chairman GREENSPAN. You mean with essentially zero inflation?

Senator MACK. Right.

Chairman GREENSPAN. The answer is no, because what we essentially finance over the long run, if you can put it that way in the amount of credit that we support, reflects the nominal gross domestic product.

Senator MACK. Do you have any specific proposals that policy-makers could implement to boost potential real growth in the economy?

Chairman GREENSPAN. There is an interesting question first that we have to answer. And that's this nagging dilemma which exists about why, with this extraordinary acceleration that we've seen in technology, at this \$ic growth acceleration means acceleration of productivity growth.

It's hard to envisage the state of technological change being more rapid than we see, and we have to ask ourselves why isn't it not reflecting itself in the data, even granting, as I point out in my remarks, that we probably are not measuring it correctly. But still, it's not fully there no matter what.

Professor David of Stanford, made an extraordinarily important insight into this process a number of years ago when examining the comparable dilemma, namely, that in the latter part of the

19th century, there was a major thrust forward because of the advent of electric power, but it never really embodied itself in real economic growth until the 1920's. The reason essentially was that electric motors were put into buildings which were constructed for the purpose of implementing steam power production. As a consequence of that, you really didn't get the full synergies of electric motor use in the economy until we built whole new infrastructures in the 1920's, flat rather than the vertical buildings that had been the key type of factories we had in the 19th century.

When that all came together, the measured productivity of this country all of a sudden took off. There are very similar relationships here with respect to trying to impose a silicon-based computer chip telecommunications technology on an infrastructure which was not put together for that purpose.

As that changes, one would expect, and indeed I do, that there will be a marked acceleration in productivity. Pending that, we have to recognize that it may be a few years before it even starts to take off, because I don't know what state of this process we're in.

We also have to be aware that you cannot have merely capital investment as your base for productivity gains. There is the whole question of what the so-called human capital is that interfaces with that process. What is terribly obvious, when you begin to look at the shortfalls of the skills that we have to implement this new technology, is that it's going to become terribly important to implement a significant amount of education and especially on-the-job training to make certain that our work force has the skills that are required to implement this new high-level technology, because we already have the highest standard of living in the world.

When one perceives of where we go as we move through the rest of this century into the next, it is a wholly different type of economic structure, one extraordinarily technologically high-skilled and one which, unless you have the appropriate trained people to handle those technologies, you will not get the synergisms and the type of growth rewards, so to speak, that we are all seeking.

Senator MACK. Thank you.

The CHAIRMAN. Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Chairman Greenspan, one of the issues that has been developed in this election, Presidential primaries, and it was also in the last election, is a feeling of a middle class discontent.

You hear today that two incomes will not equal what one was several years ago. Companies are moving jobs overseas to lower paid workers. Large corporations are laying off workers.

Now we've heard various political solutions put forth, such as flat tax, trade protection, tax incentives to keep jobs in the United States.

My question is, what are your thoughts on the issue, and what is the answer to the fear of the middle class American that their standard of living is being weakened and continues to erode, they feel?

Chairman GREENSPAN. Senator, to extend my remarks, one other aspect of this tremendous move toward high technology products has been the very evident increase in the premium for intellectual

skill, because the products that we're producing are ever increasingly conceptual as distinct from physical.

The consequence of this has been that since the late 1970's, we've observed that the incomes earned by those who have college degrees have been increasing relative to those who have high school degrees, and those who have high school degrees have had incomes rising at a pace faster than those who were high school dropouts, or I should say, falling less in certain cases. But the consequence of that has been a very significant dispersion of incomes in our economy and a not insignificant proportion of the work force, as a consequence, has actually experienced real declines in income. This has created a very considerable degree of frustration for a significant part of our work force.

Superimposed on that is the problem that as a logically necessary result of having very high technology products increasingly becoming embodied in our capital stock, we are finding that the average age of the equipment that people use is falling dramatically as we get newer and newer types of applications. The consequence is that rapid change in equipment is making people with any existing level of skills highly insecure because what they are dealing with is changing all the time and they don't feel secure in their capacities.

The example I like to use, which I think is a little bit extreme but nonetheless I think captures the problem, is if you have a skilled typist who types at an extremely rapid pace, but is confronted every 2 years with somebody coming by and changing the structure of the keyboard, all of a sudden, that skill that is in one's fingers just disappears and has to be relearned. If you keep changing the capital stock, as we are, people who are highly skilled feel very insecure that those skills will not be usable 4 or 5 years down the road.

This is the reason why I emphasize the fact that in order to handle this problem, it is not protectionism, it is not a lot of other things that we can do, but if our main purpose is to try to reduce the degree of anxiety which a very large number of people have in part because of the increasing job insecurity which I pointed out in my prepared remarks, what we have got to do is to make certain that they have a sense of where they are in the infrastructure which makes them feel confident that they can handle what they're doing.

As a consequence, we are going inevitably to move toward a very substantial amount of education taking place within the business firm, and indeed that already occurs because a lot of firms require their people to go 2 nights a week, for example, to the company university to learn the types of things they need for what it is they are doing.

To a greater or lesser degree, that's inevitably going to occur because that's the only way our system will work. It's the only way in which the level of anxiety is going to be lowered, and if we find that we can improve the portability of certain aspects of our pay programs, then people will not feel all that insecure moving from one firm to another, provided that it's their skills that they're bringing forward in the sense that now, for example, physicians who go from one hospital to another, or people who are truck driv-

ers go from one firm to another, it's their skill that gives them their security, not the particular job. If we can construct that sort of labor force interface with the business environment, I think we can successfully confront these issues.

I'm not sure that a lot of other things that are suggested are going to resolve this. I'm not saying we're not going to have to do more, but unless we do something with respect to the education question, other things will not effectively work.

Senator FAIRCLOTH. Thank you, Mr. Chairman.

The CHAIRMAN. Senator Gramm.

Senator GRAMM. Thank you, Mr. Chairman.

I want to touch very briefly if I can, Alan, on a few issues.

First of all, let's assume for a moment that you weren't the head of the Federal Reserve Board, and someone hired you and said, "I'm going to give you a bonus as an advisor to the Government. For every quarter percent you get the economy to grow above the current level, I'm going to give you \$5 million. And I'm going to give you 10 years to implement this policy."

Off the top of your head, forgetting all political considerations, tell me what kind of policies you think you would recommend?

Chairman GREENSPAN. Well, the ones I just recommended are necessary first conditions—namely to take advantage of what appears to be a potential acceleration of growth which is in the pipeline but is not yet evident, and will eventually come on the scene. I hope it occurs within the 10 years so I get my bonus. But I would have had nothing to do with that.

I generally believe, as I've said before this Committee on numerous occasions, that maintaining a degree of incentive for capital investment and a degree of regulation which does not hobble those incentives are necessary conditions for economic growth.

There are enumerable ways in which one could implement that but I think all of our history suggests that unless you do that, it is very difficult to create the types of incentives which improve productivity. As I said before, unless the policies that we're implementing improve productivity, they will not increase growth.

Senator GRAMM. As you know, we have strong forces now in both political parties that are arguing for protectionism. Since our focus here is on economic growth, I'd like to give you an opportunity to comment on protectionism and its impact on economic growth.

Chairman GREENSPAN. Protectionism has a number of negative effects, but one which is very relevant to this issue is it removes the level of competition in a domestic economy.

Nobody likes competition. As I used to say before this Committee and other Committees, when I was in the private sector, I hated competition. I didn't like people who offered services—

The CHAIRMAN. I think some of us up here feel the same way.

Chairman GREENSPAN. Yes.

[Laughter.]

Chairman GREENSPAN. But in the calm of the evening, I recognized that that made me work better, that I did things far more effectively and hearing the pound of my competitors' feet behind me, I did a lot better and my clients did a lot better.

If you create protectionism around an industry, an economy, anything, you remove those pressures. I have no question that the

removal of the competitive pressure will feel good. But I also suggest that it's the last thing that one would want to implement if the purpose is to improve productivity.

Senator GRAMM. I'll give you a brief example.

In 1992, I bought an American-made sport utility vehicle, and I already had a 1982 American-made sport utility vehicle which was a clunker the day I bought it. In those days, you didn't want to buy a car made on Monday, and you didn't want to buy a car made on Friday. We had all these guys on assembly lines who, in the words of that old country and western song, were having daydreams about night things in the middle of the afternoon.

[Laughter.]

By 1992, we were producing as many good trucks and cars as anybody in the world, given the price we were charging for them. But it's very interesting to note what happened when Bill Clinton reclassified sport utility vehicles as trucks. I went out and looked at the price of a new sport utility vehicle, like the one I bought, and it was slightly over \$5,000 more expensive than the one I bought in 1992.

What happened was that Detroit siezed the whole \$5,000. I don't see any evidence that our market share changed, but the consumer is now paying \$5,000 more for a sport utility vehicle. I haven't looked at the data, but I wouldn't be surprised that if you could separate that data out, it would turn out that virtually the whole \$5,000 ended up being lost to the consumer.

Let me get back to my first point, about this long-term deficit. Looking at the actuarial makeup of the country, looking at the problems with Social Security, looking at the explosive cost of Medicare, how much does this worry you, looking off 20 years into the future?

Chairman GREENSPAN. Quite a considerable amount, Senator. One thing we can be reasonably sure of 20 years ahead is the rough demographic distribution of our population. We know the age categories. And we can pretty much extend, as a consequence of that what, under current programs, various benefits would be and the like.

It is conceivable that if, for whatever reason or by whatever means, we can significantly accelerate growth and therefore revenues to a number of these programs. The current services projections which, as you well know and pointed out, look awful, but by 2020, may improve. That is really taking a very large chance on an event which we have really no realistic way to judge is going to happen.

Therefore, it is essential that we address those issues now, rather than later, because the types of changes that we have to make now to bring a number of these benefit programs back in line under reasonable growth forecasts, reasonable meaning ones we're currently using in our types of projections, we could probably make with very little having to be changed say 1 or 2 years from now.

In fact, it is probably quite likely that you could pass legislation today that would not come into effect for 10 years, and it's far easier to put legislation in place today with a 10-year lag so that people can adjust to the timeframe than it is to wait until 2 years

before you're running into really serious problems and enact legislation at that point.

If it turns out, having done that, that we have managed to create a new beneficence and growth, which I think we would all be very much hoping will occur, it means that there are just more resources to deal with both in the public and the private sectors, and I don't consider that a negative which one has to be concerned about.

Senator GRAMM. Well, if I may, Mr. Chairman, just at one figure, at 4 percent real growth rate——

The CHAIRMAN. If I might just intrude upon my friend, since I'm going to be next, I'm going to ask that we go to me. I'm going to yield to you, so that we just keep this moving.

Senator GRAMM. Even a 4 percent real growth rate only eliminates half of the growth in the unfunded liability of Social Security. Even if you could achieve the growth rate we had from 1950 to 1966, which would be an incredible achievement to sustain over 25 years, we only solve half of the problem.

Chairman GREENSPAN. Especially since the population has——

Senator GRAMM. That's right, you still don't really nail the problem down. Even growth at a rate that would equal anything we've had over any extended period of time in the whole history of the country won't solve the problem. It makes it easier but it still doesn't eliminate excruciatingly difficult decisions.

Chairman GREENSPAN. That's right.

The CHAIRMAN. Let me ask you this because I was looking at some of the clips yesterday from your testimony at the House. I think it underscores the problem that some of us see.

The fact that there are tremendous potentials, and you testified to it today, hopes and aspirations that the marketplace has factored in—we're getting spending, particularly long-term growth in these programs, very important programs, politically sensitive programs, Medicare, Medicaid, except for social programs that underscore the safety net that we're all concerned about under control. Unless we do something to get the deficit under control for a period of time to deal with this spending explosion, kind of project out, and not just pass programs that are going to have implications of growth in the future and just look the other way, then we're going to have real serious problems.

Now I can't help but believe that there was not an anticipation, a very strong anticipation on the part of many that Congress and the President, for the first time, were really going to do something about this deficit and not just smoke and mirrors.

I looked at your statement yesterday, and I'm going to read it to you. I don't know if it's verbatim but it's in one of the newspapers, the *New York Times*:

A failure by Congress and the White House to reach agreement this year on a credible deficit reduction plan would mean that some of last year's 2 percentage point decline in long-term interest rates "will have to be refunded."

Then it goes on to say, "passage of a program by contrast would bring rates down quite a bit further, Mr. Greenspan predicted."

Do you care to comment on that because, you see, I feel very strongly that we're in for an absolutely horrific awakening that the

marketplace will react very, very negatively if we fail in coming to closure before this next election because the Wall Streeters, the economists, the people who make their living having followed this, they're going to say, if you fellows couldn't do this before an election, with the pressure of a Presidential election, by God, there's no way you're going to do it afterwards.

Do you care to comment?

Chairman GREENSPAN. First of all, let me just say that the *New York Times* report is correct. I hope you're mistaken about not being able to do it if you don't do it before the election, but I fear that you probably are correct.

The CHAIRMAN. Well, I hope we can do it, I really do. There's a group of Republicans and Democrats who are working together to come up with a balanced budget program that's real, that's not smoke and mirrors, that's not made up of backloading cuts, which I find absolutely deplorable.

Anybody who says they're going to—and I don't care whose program it comes in, whether it's a congressional program or one that comes from the Administration—that if you say you're going to really make all of your spending reductions in the last 2 years of a 7-year plan, that's just nonsense. That's not realistic.

There is a group of Republicans and Democrats who have been meeting regularly and who are achieving some real accord. It would be my hope that absent the ability of the Administration, and that's the President, and the congressional leaders to come to closure, because this is a political year and it's very easy to posture and to frighten people and to tell them what dire repercussions would take place, that there would be some congressional leadership that would bring to the table ultimately the White House and congressional leaders to pass a real plan of deficit reduction that will lead to balancing the budget without smoke and mirrors.

I think there is that opportunity, but if it doesn't take place, I share the concern that you expressed yesterday and today, that there will be some very real problems in the marketplace. Notwithstanding all of the technological changes that are taking place, we can look forward to long-term rates going up tremendously.

I think they factored in, they have already counted on our doing something of significance.

Chairman GREENSPAN. If I might just make one collateral comment, Mr. Chairman.

As I said earlier, I think that there has nonetheless been a change in the culture. It's in the economics fraternity, it's in the Administration, it's in the Congress. I would find it unlikely that even under the worst scenarios, that we'll go back to some earlier process which was highly unacceptable by any standard.

Nonetheless, to assume that we can just go through this process and have the existing negotiations unravel without market consequences is highly unrealistic. Indeed, as I indicated earlier, I think the backing up of long-term interest rates in the last week is to a large extent a reflection of that problem.

The CHAIRMAN. Mr. Chairman, I hope that my colleagues and those who are concerned, and I think all of us are, Republicans, Democrats, liberals, conservatives, will hear your concern as one that will give us, give additional impetus for us doing the job. That

might mean, you know, that there has to be an accommodation on both sides. Maybe the tax cut, which I think is secondary, I really think is secondary to the business of balancing the budget and making spending cuts and reducing the rate of growth.

Maybe people will be able to give and put aside partisanship and that means on both sides, to really do the business of the people.

I am very concerned that there will be an additional backup. And indeed going into this economic downturn or softness could contribute significantly to an economic downturn.

That's my concern.

Senator Sarbanes.

Senator SARBANES. Chairman Greenspan, the Fed doubled the interest rates, the Federal fund rate between February 1994 and February 1995, from 3 to 6 percent, correct?

Chairman GREENSPAN. Correct.

Senator SARBANES. Then in July you took it down, and again in January, so it's now at 5.25 percent.

Chairman GREENSPAN. Yes, sir.

Senator SARBANES. Now, at 5.25 percent, the Federal funds rate remains 275 basis points above the inflation rate, correct?

Chairman GREENSPAN. Approximately. It depends on where you envisage the inflation rate at this particular moment.

Senator SARBANES. All right.

Chairman GREENSPAN. But I grant you, you're general—

Senator SARBANES. But the long-term average is 175 basis points. In fact, when we had the hearing in the fall, back in September, you in effect said that, indeed real rates were somewhat above long-term averages and probably above long-term equilibriums.

It would be my own perception that that remains the case.

Now, when the Fed took the rates down in July, it said inflationary pressures have receded enough to accommodate a modest adjustment in monetary conditions, correct?

Chairman GREENSPAN. Correct.

Senator SARBANES. At that point, the inflation rate for the 12 months ending in May, which was the latest data available, was 3.2 percent.

The inflation rate now is at 2.5 percent. There are indications that the economy is softening. In fact, you said yesterday to Chairman Leach, that there is no question this is a soft economy, the Chairman—meaning you—said in response to Representative Leach.

Now, and of course we've had the blue chip forecasters revise their forecast downwards now to 2 percent growth for the coming year.

The point I want to pursue is whether the insurance policy now ought not to be on the side of growth, given where we are.

I say this in light of this Wall Street Journal article about a month ago that said even the Fed's Greenspan is fallible when trying to predict a recession. In fact, working off of the minutes of the Fed for the 1990 period, it takes a long time to get those minutes, but in any event, I think there are several things we can stipulate with some degree of certainty.

This is quoting you in August 21, 1990.

Namely that those who argue that we are already in a recession are reasonably certain to be wrong. End of quote.

Then in October and at the moment, it isn't raining, the economy has not yet slipped into recession.

Of course we now know that the economy had gone into recession at that time.

Now, given all of this, wouldn't it be wise to try to guard against the economy moving downward in the period ahead?

Chairman GREENSPAN. Well, Senator, let me first put the summer and fall of 1990 in a certain context. The problem that you have when you are looking at an economy is that the definition of what constitutes a recession, in my judgment, is faulty in the following sense.

If the economy had turned up in say October 1990, the fact that July was a temporary peak would have been lost in history. It is only in retrospect that where the actual absolute peak of a cycle was has any meaning.

We have had, and invariably have in all cycles, several declines which have never turned into recession. I define a recession, as I indicated earlier, as essentially a significant structural change in the way the system is working, and it's a sense of a tearing of the fabric of relationships which induces a major implosion.

Through September 1990 and in the early—I've forgotten exactly when you could really begin to see when things were happening—but surely through the end of September 1990, there was no evidence of a recession in the definitional form that I use it. The reason I say that is that at the moment, everyone is saying, well, we're not in a recession at the moment.

If it turns out 2 weeks from now the economy turns into a recession, everyone will be arguing that the recession began in September last year.

That has no meaning because if, as I expect, the economy picks up from here, as indeed the vast majority of forecasters believe, no one will remember that industrial production was at a peak in September 1995.

Senator SARBANES. But the point is that given that it's a slow economy, by your own statement, and given the performance on the inflation front which is much better than the performance last July when you first took rates down, isn't it advisable to guard against the slow economy?

I don't want a repetition—

Chairman GREENSPAN. May I just—

Senator SARBANES. Let me make this point, at the February 1990 meeting of the Federal Open Market Committee, Roger Guffy, the president of the Kansas City Fed, said the following:

And I'm quoting now from the transcript.

The Committee hopes—this is the Open Market Committee—that there's some exogenous event that causes a recession, and we won't get blamed for it, and yet recapture the progress toward price stability.

Now, you know, I hope an attitude of that sort is not present currently on the Open Market Committee because I don't think we should have a recession, and you certainly ought not to be searching for an exogenous event in order to escape any responsibility for it.

Chairman GREENSPAN. Well that's certainly not my view.

Senator SARBANES. I wouldn't think so.

Chairman GREENSPAN. Senator, you are merely expressing the reasons why, on January 31, we chose to move lower. I can't go beyond that statement.

The CHAIRMAN. Senator Mack.

Senator MACK. Mr. Chairman, something caught my attention yesterday when the bond market reacted one way and the price of gold reacted the other to whatever statements were made yesterday.

The price of gold fell I think about \$5, and 30-year bond rates went up.

Those seem to be contradictory signals.

I mean is there some explanation, from your perspective, as to why that happened?

Chairman GREENSPAN. Well, over the long run, there is a correlation, as you know, between the gold price and long-term interest rates to the extent that the gold price is a pretty good estimator of inflation expectations, as indeed is the long-term bond. But on a day-by-day basis, you cannot expect that these similar events will affect both. In the gold market, we've had a peculiar problem in recent weeks, which is difficult to segregate from the more fundamental issues that are driving the price of gold, which is the fact that the so-called lease rate for gold shot up significantly and then came down again. And with the lag, the price of gold has sort of picked up part of that problem.

That is clearly a technical market issue which probably temporarily overrides the issue of changes in inflationary expectations. You often get that sort of problem, so you never quite disentangle why you seem to get contradictory signals.

Senator MACK. Listening to the discussion that's taking place here today, I got the impression that most were saying that the market's reaction to the failure to get an agreement has something to do with the long-term interest rate going back up somewhere between what, 20 and 25 basis points, I guess, over the last—

Chairman GREENSPAN. It's been more than that.

Senator MACK. More than that?

Chairman GREENSPAN. Yes.

Senator MACK. How much more?

Chairman GREENSPAN. It's up 40 basis points.

Senator MACK. Forty basis points in the last 30 days?

Chairman GREENSPAN. Oh, less than that.

Senator MACK. OK.

It would then not be—I mean, I suspect what you're saying, given the answer to that last question, that then gold prices will start back up as well?

Chairman GREENSPAN. No. I can't forecast what they're going to do because I'm not quite sure where the adjusted level is, if I may put it that way, that is, adjusted for short-term technical factors. We're going to find out, my guess is, within a week or so how much of that is merely technical and how much is changed inflation expectations, if any. But I, at this stage, would find it extremely difficult to get a good sense of what part is what.

Senator MACK. I'm going to move off of that, though, and raise some questions about what I refer to as forward-looking indicators. We've had some discussions about this in the past.

But I'd like to ask you about forward-looking indicators of monetary policy, inflation, and growth.

Would you please discuss the forward-looking indicators that you believe are important and how you might assess any movement of them over future months?

For example, bank reserves, yield spreads, commodity prices?

Chairman GREENSPAN. Yes.

Senator what we have found over the years is that to feel confident that we have a sense of how the economy is functioning and where its weak points and strengths are, is that we look at an extraordinarily wide range of different types of data which capture various different views of the so-called elephant, if you want to look at it that way.

It is true that there are certain specific indicators which sometimes seem to capture the overall, sometimes not. For example, the spread between 6-month commercial paper and 6-month Treasury bills was an indicator which seemed to have exceptionally powerful forecasting capability until it was actually applied to a specific event, which was the 1990-91 recession, and it failed. The term structure of interest rates, for example, seems to have some forecasting capability. We often find yield spreads of different types very useful in judging the question of apparent risks in the system.

We use all of them and what we find is that they all work some of the time but not all of the time. But if you have a large enough sample, you usually have a fairly good sense of the underlying forces that are moving the economy.

It's hard to define in any particular case which are the more relevant ones and which are not. Obviously, if we're in a period where inventory liquidation is a critical phenomenon, we try to look at those elements which seem to capture those data before they are officially published, and we therefore will look at certain bank loan relationships which are used in part to finance inventories. Or we will look at individual inventory data for motor vehicles, or other products for which data are available in advance of these aggregative numbers.

What we will tend to do is to get samples and anecdotal evidences to determine whether in fact a particular phenomenon, such as a degree of inventory liquidation is accelerating or decelerating, and even though we may not know what the numbers are, we'll get a qualitative sense, which is enough for us to get a sense of what the economy is doing. We have a huge effort underway at all times, not only to process published data but very importantly to reach out for anecdotal information. Indeed, we talk to a lot of individual companies with respect to how their orders are doing, what they're expecting, their backlogs, and what their projects are.

We have our 12 Federal Reserve Banks periodically reaching out into their particular communities and getting real time judgments on the part of businesses and others as to what's going on. We find that very useful. It gives us a real time qualitative view of what's happening well before we have specific statistical or financial indicators. So what we tend to do is to look at all of that.

If we could find some specific number which, with an extremely high degree of accuracy, captured all of this, we wouldn't need to have the elaborate type of research business evaluation process that we go through.

But we have not found any alternative to that process.

The CHAIRMAN. Senator Faircloth.

Senator FAIRCLOTH. Thank you, Mr. Chairman.

Chairman Greenspan, I'll try to be real brief with my question, but it keeps coming back on an annual basis, I guess, because it does concern me as a 68-year-old man, and I've seen the transitions that I'm sure you have.

By borrowing \$5 trillion or whatever we owe today, have we not led the so-called middle class that we're asked about, the average American citizen, to expect a higher standard of living by this continuous borrowing, to expect a higher standard of living than we can continue to maintain with the productivity of the country?

And just, you know, and you and I have seen it, but so many young people and younger people have not.

I don't want to return us to today's recession, but I remember when a deluxe automobile was the one that had two taillights and two sun visors, and everything else went down from that. Yet today, if you have a 16-year-old child that doesn't have a super sport with air-conditioning and every possible accessory, you're depriving the child.

These are just glaring examples of what we have grow. It used to be a house with one bathroom would certainly handle six people, and it cost \$10,000.

Chairman GREENSPAN. And it was inside.

Senator FAIRCLOTH. That was inside, and one bathroom would adequately handle six people. Today, if you have six people, you need six bathrooms.

Have we, because of borrowing \$5 trillion, and I don't say it's bad, I mean, the expectations for vacations and all of the things are good, and I'm delighted that we have them, and my question is, can we continue to afford them without going deeper in debt?

Chairman GREENSPAN. Well, Senator, what we have to do is to view debt both in the public and private sectors, and recognize that as our standards of living rise, and as we build up assets that invariably occur from one generation to the other, we tend to finance various different types of purchases by borrowing.

For example, as you well know, in Japan, you usually have to wait until you can save an adequate amount of money to buy a home, at least that's what used to be the case, and it was considered inappropriate to borrow. It used to be that way in part in the United States.

Now the mortgage market is an extraordinarily facile instrument to enable you to pay off from future earnings and have assets earlier. It's obvious that the extent to which one can move up the process, so to speak, really rests on your ability to borrow other people's savings and they're of course willing to lend them to you. And what debt is in the private sector basically is that process.

The comparable feature in the Federal sector is when we sell our bonds abroad, and effectively borrow foreign savings to do much the same thing. There are clear limits to that. I think that a lot

of economists don't like the usual household analogy about the Federal budget, and indeed there's some differences, but if we got fairly naive and required that everyone handle Federal finances the way we handle our household finances, it may be naive, but it would sure work, and it would solve a lot of the problems that our Chairman has been terribly concerned about in his remarks today.

Senator FAIRCLOTH. I thank you.

It concerns me maybe as having lived long enough to have seen just the vast difference in expectations, maybe I'm probably more sensitive to it than others, but you mentioned a downpayment, just as an aside.

When I went in the automobile business, the remnant of the OPA, if anybody remembers that, said you had to have 50 percent of the money down to buy an automobile, and you were under some Federal charge not to sell a car unless the customer had 50 percent of the money or a trade-in.

Chairman GREENSPAN. We ought to tell the next generation and beyond that that was the Office of Price Administration.

Senator FAIRCLOTH. OPA, Office of Price Administration.

Mr. Chairman, how important is it literally that we keep manufacturing jobs in this country?

Certainly no company can afford to pay American wages, 10 times or whatever, the wage rate in Asia or Mexico, or whatever the difference might be.

We have seen this movement of manufacturing jobs, as you and I have discussed, the cut-and-sew industry just left the lofts of New York in the late 1950's and 1960's and moved south.

The flat buildings that were designed for it, and today some of the most expensive garments and best in the country are made in little isolated communities that you would never expect them to be.

Of course we took great pride in that we had gotten rid of the IG—International Garment Workers—or whatever, but we built these plants and the cut-and-sew came.

Chairman GREENSPAN. That's IGWA, as I remember.

Senator FAIRCLOTH. IGWA, International Garment Workers. Thanks. They came.

Now we are seeing all but the highest end of these cut-and-sew simply move out to offshore.

Now, we survived before they came and I assume we'll keep on surviving. New York didn't collapse when they left the garment district and moved south, and we'll keep going if they move to Mexico.

So how do we address the problem and how serious a problem is it?

Chairman GREENSPAN. The first question we have to ask ourselves, which may seem an extraordinarily odd way to answer your question, Senator, is what do we mean by manufacturing?

The reason I say that—that's a rhetorical question—is that as we move toward this technologically-based type of economic system, what we are finding is that the proportion of fabricated goods, which is what historically has always been our definition of manufacturing, has become increasingly more ideas and less physical bulk.

In the 1930's, for example, we had radios which were as large as this desk and had vacuum tubes. Today, our little radios are this

size, they are far better, and they're all transistor operated. The difference between the two are concepts. It's the invention of the transistor and new insights on how to put materials together to do things.

We are finding that the average weight of industrial output is falling dramatically relative to the real value that's being produced. As a consequence, if you actually weighed the number of tons of physical things that we turn out, I wouldn't be surprised to find that even though the real value of industrial output has gone up quite significantly in the last 40 or 50 years, the actual amount of tons has not gone up very much at all. The difference is ideas. It's the downsizing of products. There's far more valuable manufacturing but less bulk.

The problem is that as we continue to project that, we find ourselves, for example, realizing that if we have a software product that is 98 percent conceptual, but we put it in a CD ROM, a manufactured good, we're getting to the point where the distinction between what is manufacturing and what is not is becoming extremely fuzzy.

My own impression is that 20 years from now, the so-called standard industrial classification, which we use, will probably no longer capture correctly what it is we produce. So that what we will term manufacturing 20 or 30 years from now is going to be quite different from what it is today, and it will be difficult to say whether a lot of jobs are factory jobs or non-factory jobs because the average factory is not going to look like a factory today, and certainly not the way it looked 30 years ago.

So I don't think we ought to view the issue of jobs as high-paying factory jobs or low-paying service jobs. That distinction is rapidly becoming obsolete, and you have to look at where is the value-added in the economy—whether it's conceptual value-added or whether it's physical value-added—and not be terribly concerned whether it is a palpable physical good or whether it's a conceptual product for as a practical purpose, for the value that is produced, that is, meaning what it is that is conceived of as a value to human beings or to people as consumers, whether it's a physical thing or non-physical thing really doesn't matter all that much. The crucial issue is what is its value-added and its value to other people, which means what is our purchasing power. So I would very strongly argue that this question of distinguishing factory employment, manufacturing employment, and non-manufacturing employment is not a useful concept.

Senator FAIRCLOTH. Thank you, sir.

The CHAIRMAN. Mr. Chairman, I just think it's important to note something. First of all, let me make an observation.

It's based anecdotally, et cetera, but I think the economy is having some problems. I also think that it is absolutely simplistic to say that those problems can be dealt with by the Reserve by simply lowering interest rates.

Indeed, they may exacerbate the problem. Indeed, an economic downturn, and just simply dropping interest rates and somehow thinking that short-term rates by coming down are going to turn everything around is fallacious.

The marketplace has become very sophisticated, right? I mean the same computers, studies, thoughts, and young people who are graduating are working in the marketplaces. They are giving advice to their clients to large pools of money that are available, have the data, and they're going to respond accordingly.

Your drop of interest rates on a short term is not going to be the answer. The Government cannot solve all these problems.

But indeed Government can do something to help exacerbating some of the uncertainty, it would seem to me.

With that as a background, I'd like to share with you, I don't know if you had an opportunity to read, I don't necessarily subscribe to everything, but certainly I do subscribe to some of the observations made in today's *Washington Post*, February 21, 1996, by Robert J. Samuelson.

Did you have an opportunity?

Chairman GREENSPAN. Is that the same article that appeared in *Newsweek* this week? I think it may be.

The CHAIRMAN. Very, very interesting.

Let me just take the time to read the first paragraph.

We are now witnessing—this is Mr. Samuelson—another outbreak of one of the most destructive tendencies in American politics, the practice of our leaders to promise phantom solutions to our economic problems. The latest object of the compulsion is job insecurity. Yo, America. Government can't suppress it and its trying too hard could cripple the economy's job creating capacity, Mr. Samuelson goes on to say.

This perpetual pandering to Americans' every anxiety is a political disease that ultimately feeds popular cynicism.

He goes on to say that, you know, here's government in Canada, it's running around saying, I'm going to create more jobs, I'm going to do this, I'm going to do that. You vote for me, and I've got the magic cure.

What nonsense.

And he does make, I think it's a very balanced argument, I think he does make some very astute observations.

Let me go to that, where he talks about the role of Government and what it can do, the next to last paragraph.

He says, politics should focus on what Government can do, not what it can't do. It can modestly help laid off workers, some improvements in the social safety net.

Then he goes on to quote the Kassebaum-Kennedy bill, legislation that would help fired workers keep their health insurance. The White House has endorsed it, Congress should pass it.

But sweeping measures to prevent job loss or protect laid-off workers are self-defeating.

It's a fact.

Maybe we've gotten so involved in our own rhetoric and the ability to want to transform our rhetoric into getting elected that I think we have a disease up here that maybe you know those who are espousing these things actually have come to believe them.

It's just really incredible.

Then I go back to one last thing, which I think is worthwhile ending on.

And that is, someone said this, and this is in the American Banker. "Lower budget deficits are the surest and most direct way to increase national savings. Higher national savings would help to reduce real interest rates further."

You know who said that?

Sure you do.

Are you being modest?

Chairman GREENSPAN. No. I agree with that.

The CHAIRMAN. You agree with that.

[Laughter.]

The CHAIRMAN. That was a quote of Chairman Greenspan.

[Laughter.]

The CHAIRMAN. And on that note, I have to say two things.

No. 1, Mr. Chairman, we thank you for coming in and speaking to us and sharing your thoughts.

No. 2, I couldn't agree more with you, your observations, and some of those made by Mr. Samuelson.

We had better get to the main task, which is to run and manage the assets that the people entrust to us in a better way and to be more candid with the American people.

We haven't had the courage to do what's right. And to really come together and to put aside the political rhetoric that comes from both sides.

I would hope that some of my colleagues who are working together, Democrats and Republicans, will achieve some measure of success.

I am hopeful, I really am, that they can come to a situation where they can put enough pressure by having a bill that can pass both in the House and the Senate with significant bipartisan support that will bring the Administration to the table.

If we can't do that, then I think we are in for some tough times over and above the normal business cycles that are without our control. We will be exacerbating the problem.

Mr. Chairman, thank you for your participation.

We stand in recess.

[Whereupon, at 12:15 p.m., Wednesday, February 21, 1996, the Committee was adjourned, subject to call of the Chair.]

[Prepared statement and additional material supplied for the record follows:]

PREPARED STATEMENT OF ALAN GREENSPAN

CHAIRMAN, BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM
WASHINGTON, DC

FEBRUARY 21, 1996

I appreciate the opportunity to appear before this Committee to present the Federal Reserve's semiannual report on monetary policy.

The United States economy performed reasonably well in 1995. One-and-three-quarter million new jobs were added to payrolls over the year, and the unemployment rate was at the lowest sustained level in 5 years. Despite the relatively high level of resource utilization, inflation remained well contained, with the consumer price index rising less than 3 percent—the fifth year running at 3 percent or below. A reduction in inflation expectations, together with anticipation of significant progress toward eliminating Federal budget deficits, was reflected in financial markets, where long-term interest rates dropped sharply and stock prices rose dramatically over the year.

This outcome was influenced in part by monetary policy actions taken by the Federal Reserve in recent years. Responding to evidence that inflationary pressures were building, we progressively raised short-term interest rates over 1994 and early 1995. Rates had been purposely held at quite low, stimulative levels in 1993. We moved in 1994 to levels more consistent with sustainable growth. Our intent was to be preemptive—to head off an incipient increase in inflationary pressures and to forestall the emergence of imbalances that so often in the past have undermined economic expansions.

As we entered the spring of 1995, it became increasingly evident that our policy was likely to succeed. Although various price indexes were rising a bit more rapidly, there were indications that pressures would not continue to intensify, and might even reverse to a degree. Moderating overall demand growth left businesses with excess inventories. In response, firms initiated production cutbacks to prevent serious inventory imbalances, and the growth of economic activity slowed substantially. With inflation pressures apparently receding, the previous degree of restraint in monetary policy was no longer deemed necessary, and the Federal Open Market Committee consequently implemented a small reduction in reserve market pressures last July.

During the summer and early fall, aggregate demand growth strengthened. As a result, business stocks of raw materials and finished goods appeared somewhat better aligned with sales. In sum, the economy, as hoped, appeared to have moved onto a trajectory that could be maintained—one less steep than in 1994, when the rate of growth was clearly unsustainable, but one that nevertheless would imply continued significant growth in employment and incomes.

Importantly, the performance of the economy seemed to be consistent with maintaining low inflation. Despite the step-up in growth and the relatively high levels of resource utilization, measured inflation abated a little, and many of the signs that had been pointing toward greater price pressures gradually disappeared. Expectations of both near- and longer-term inflation fell substantially over the second half of the year, as gauged by survey results as well as by the downward movements in longer-term interest rates. The fall in bond rates was also encouraged by improving prospects for significant progress in reducing the Federal budget deficit. The declines in actual and expected inflation meant that maintaining the existing nominal Federal funds rate would raise real short-term interest rates, implying a slight effective firming in the stance of monetary policy. Such a shift would have been particularly inappropriate because economic growth near the end of the year seemed to be slowing, and some FOMC members were concerned about the risks of prolonged sluggishness. Consequently, the Committee decided in December that a further reduction in the funds rate was warranted.

Information becoming available in late December and January raised additional questions about the prospective pace of expansion. The situation was difficult to judge, partly because economic statistics were more sparse than usual, owing mainly to the Government shutdowns. In addition, harsh weather in January disrupted both data flows and patterns of economic activity. But several indicators—including initial claims for unemployment insurance, purchasing managers surveys, and consumer confidence measures—appeared to signal some softening in the economy. Consonant with this pattern, some Reserve Bank Presidents reported that they seemed to be detecting anecdotal indications of weakness in the expansion within their districts with somewhat greater frequency than previously. Moreover, growth in several of our major trading partners seemed to be lagging, which could tend to moderate demand for exports.

A number of factors have prompted the recent tendency toward renewed weakness. Some are clearly quite transitory—related, for example, to bad weather or the Federal Government shutdown. Others may be somewhat more significant, but still temporary. The constraint on Government spending while permanent budget authorizations are being negotiated is one. Another may be a temporary reduction in output in some industries as businesses have further adjusted inventories to disappointing sales. As I noted last July, the change in the pace of inventory investment when the economy shifts gears can be substantial. Inventory investment surged in 1994 and into the early months of 1995, but proceeded to fall markedly throughout the rest of the year. This has placed significant downward pressure on output, which should lift as inventory adjustments subside. But for the moment, the pressures remain, in the motor vehicle industry and elsewhere.

Ultimately, of course, it is the path of final demand after the temporary influences work themselves out that determines the trajectory of the economy. There are some factors, such as high consumer debt levels, that may be working to restrain spending. But as I shall be detailing shortly, a number of fundamentals point to an economy basically on track for sustained growth, so any weakness is likely to be temporary. Nonetheless, the Committee decided in late January that the evidence suggested sufficient risk of subpar performance going forward to warrant another slight easing of the stance of monetary policy. Given the subdued trends in costs and wages, the odds that such a move would boost inflation pressures seemed low.

In assessing the likely course of the economy and the appropriate stance of policy, one question is the significance, if any, of the age of the business expansion. Some analysts, viewing recent weakness, have observed that the expansion is approaching the start of its sixth year and is now one of the longer peacetime spans of growth in the past half century. Economic expansions, however, do not necessarily die of old age. Although the factors governing each individual business cycle are not always clear, expansions usually end because serious imbalances eventually develop.

When aggregate demand exceeds the economy's potential, for example, inflationary pressures pick up. The inevitable increase in market interest rates, as inflation expectations rise and price pressures intensify, depresses final demand. Lagging demand in turn sets off an inventory correction that frequently triggers a downturn in the economy. As I noted, we acted in 1994 to forestall such a process. Monetary policy began to tighten in advance of the buildup of inflationary pressures and, at least to date, these pressures appear to have been held in check.

Capital expenditures by households and firms can also contribute significantly to the development of cycle-ending imbalances. The level of stocks of such real assets have effects on output very similar to those of business inventories. In typical cycles, capital expenditures tend to grow rapidly in the early stages of recovery: Pent-up demands coming out of a recession by consumers and businesses are satisfied by rapid growth of spending on capital assets. There is a limit, however, on, say, how many cars people choose to own, or how many square feet of floor space retailers need to service customers. Spending on such assets generally tends to grow more slowly after the pent-up demand is met. As with business inventories, the downshifting of spending on consumer durable goods or business plant and equipment may not occur smoothly. The dynamics of expanding output and rising profit expectations often create a degree of exuberance which, as in much of human nature, tends on occasion to excess—in this case, in the form of a temporary over-accumulation of assets. The ensuing correction in demand for such assets triggers production adjustments that can significantly mute growth for a time or even cause a downturn if the imbalances are large enough.

The current extent of any asset overhang is difficult to determine. The growth of demand for durables and some categories of capital goods evidently has slowed, but the available evidence does not suggest a degree of saturation in capital assets that would tip the economy into a downturn.

Moreover, financial conditions are likely to be generally supportive of spending. The low level of long-term interest rates should have an especially favorable effect. Low rates increase the affordability of housing for consumers and foster investment in productive plant and equipment by businesses. The decline in interest rates also has contributed to a pronounced rise in stock prices. The spread of mutual fund investments has meant that the gain in wealth as financial asset prices have risen has been shared by an ever-wider segment of households. These developments should tend to counter, in part, the depressing effects on spending of rising debt burdens. In addition, with the condition of most financial institutions strong, lenders are likely to remain willing to extend credit to firms and households on favorable terms. We have seen some move by lenders toward tighter standards, but these actions are a modest correction after a marked swing toward ease and should not constrain the availability of funds to creditworthy borrowers.

Against this backdrop, Federal Reserve policymakers expect the most likely outcome for 1996 as a whole is further moderate growth. On the new chain-weighted basis, the central tendency of the forecasts of Board members and Reserve Bank Presidents is for real gross domestic product to expand 2 to 2¼ percent on a fourthquarter to fourth-quarter basis, similar to the Administration's outlook. With output expanding roughly in line with standard estimates of the increase in the productive capacity of the economy, the unemployment rate is expected to remain around recent levels, as is also forecast by the Administration.

The Federal Open Market Committee expects a continuation of reasonably good inflation performance in 1996. The success during 1995 in keeping the increase in the consumer price index below 3 percent in the fifth year of an expansion illustrates that an extended period of growth with low inflation is possible. And most on the Committee anticipate consumer price inflation at or somewhat below 3 percent in 1996. Although well-known biases in the CPI, as well as the more favorable price performance of business equipment, which is not included in that index, indicate that the true rate of inflation for the whole economy would be significantly lower than 3 percent, the Committee recognized that its expectations for inflation do not imply that price stability has as yet been reached. Nonetheless, keeping inflation from rising significantly during economic expansions will permit a gradual ratcheting down of inflation over the course of successive business cycles that will eventually result in the achievement of price stability.

To emphasize its continued commitment to price stability, the Committee chose to reaffirm the relatively low ranges for money growth in 1996 that it had selected on a provisional basis last July. These ranges are identical to those employed in 1995—1 to 5 percent for M2 and 2 to 6 percent for M3. The Committee also reaffirmed the 3 to 7 percent range for debt. Patterns of money growth and velocity have been erratic in recent years, but should the monetary aggregates at some point re-establish their previous trend relationships with nominal income, average growth near the center of these ranges should be consistent with the eventual achievement of price stability.

Determining whether further changes to the stance of monetary policy will be necessary in the months ahead to foster progress toward our goals will be a continuing challenge. In formulating monetary policy, while we have in mind a forecast of the most likely outcome, we must also evaluate the consequences of other possible developments. Thus, it is sometimes the case that we take out monetary policy "insurance" when we perceive an imbalance in the net costs or benefits of coming out on one side or the other of the most probable scenario.

For example, in our most recent actions, we saw a decline in the Federal funds rate as not increasing inflationary risks unacceptably, while addressing the downside risks to the most likely forecast. In assessing the costs and benefits of adjustments to the stance of policy, Members of the Committee recognize that policy affects the economy and inflation with a lag and thus needs to be formulated with a focus on the future. Over the past year, we have kept firmly in mind our goals of containing inflation in the near term and moving over time toward price stability, and they will continue to guide us in the period ahead.

Structural forces may be assisting us in this regard. Increases in producers' costs and in output prices proved to be a little lower last year than many had anticipated. While it is too soon to draw any definitive conclusions, this experience provides some tentative evidence that basic, ongoing changes in the structure of the economy may be helping to hold down price pressures. These changes stem from the introduction of new technologies into a wide variety of production processes throughout the economy. Successive generations of these new technologies are being quickly embodied in the nation's capital stock and older technologies are, at a somewhat slower pace, being phased out. As a consequence, the nation's capital stock is turning over at an increasingly rapid pace, not primarily because of physical deterioration but reflecting technological and economic obsolescence.

The more rapid advance of information and communications technology and the associated acceleration in the turnover of the capital stock are being mirrored in a brisk restructuring of firms. In line with their adoption of new organizational structures and technologies, many enterprises are finding that their needs for various forms of labor are evolving just as quickly. In some cases, the job skills that were adequate only 5 years ago are no longer as relevant. Partly for that reason, most corporate restructurings have involved a significant number of permanent dismissals.

The phenomenon of restructuring can be especially unfortunate for those workers directly caught up in the process. Many dedicated, long-term workers in all types of American businesses—including long established, stable, and profitable firms—have been let go.

An important consequence of the layoffs and dismissals associated with restructuring activity is a significant and widely reported increase in the sense of job insecurity. Concern about employment has been manifested in unusually low levels of indicators of labor unrest. Work stoppages, for example, were at a 50-year low last year. And contract negotiators for labor unions have sought to obtain greater job security for their members through very long term labor contracts, including some with virtually unprecedented lengths of 5 or 6 years.

Of particular relevance to the inflation outlook, the sense of job insecurity is having a pronounced effect in damping labor costs. For example, the increase in the employment cost index for compensation in the private sector, which includes both wage and salary payments and benefit costs, slowed further in 1995, to 2¼ percent, despite labor market conditions that, by historical standards, were fairly tight. With productivity also expanding, the increase in unit labor costs was even lower. In manufacturing, such costs have actually been falling in recent years. While the link between labor costs, which account for two-thirds of consolidated business sector costs, and prices is not rigid these very limited increases in labor expenses nonetheless constitute a significant restraint on inflation.

In addition to its effect on labor costs, the more rapid pace of technological change is reducing business costs through other channels. Initially most important, the downsizing of products resulting from semiconductor technologies, together with the increasing proportion of national output accounted for by high-tech products, has reduced costs of transporting the average unit of GDP. Quite simply, small products can be moved more quickly and at lower cost.

More recently, dramatic advances in telecommunications technologies have lowered the costs of production for a variety of products by slashing further the information component of those costs. Increasingly, the physical distance between communications endpoints is becoming less relevant in determining the difficulty and cost of transporting information. Once fiber-optic and satellite technologies are in place, the added resource cost of another 200 or 2,000 miles is often quite trivial. As a consequence, the movement of inputs and outputs across geographic distance is progressively becoming a smaller component of overall business expenses, particularly as intellectual—and therefore immaterial—products become proportionately more important in the economy. This enables an average business firm to broaden markets and sales far beyond its original domicile. Accordingly, fixed costs are spread more widely. For the world market as a whole, the specialization of labor is enhanced to the benefit of standards of living of all market participants.

To be sure, advancing technology, with its profound implications for the nature of the economy, is nothing new, and the pace of improvement has never been even. But it is possible that we may be in the midst of a quickening of the process. It is possible that the rate at which earlier computer technologies are being applied to new production processes is still increasing. This would explain the recent decline in the growth of unit costs. Nonetheless, we have to be careful in projecting a further acceleration in the application of technology indefinitely into the future, as would be required for technological change to depress the rate of increase in unit business costs even more. Similarly, suppressed wage cost growth as a consequence of job insecurity can be carried only so far. At some point in the future, the tradeoff of subdued wage growth for job security has to come to an end. While it is difficult to judge the time frame on such adjustments, the risks to cost and price inflation going forward are not entirely skewed to the downside, especially with the economy so recently operating at high levels of resource utilization.

In light of the quickened pace of technological change, the question arises whether the U.S. economy can expand more rapidly on an ongoing basis than the 2 to 2¼ percent range for measured GDP forecasted for 1996 by Government agencies and most private forecasters without adding to inflationary pressures, which in turn would undermine growth. The Federal Reserve would certainly welcome faster growth—provided that it is sustainable.

The particular rate of maximum sustainable growth in an economy as complex and ever-changing as ours is difficult to pin down. Fortunately, the Federal Reserve does not need to have a firm judgment on such an estimate, for persistent deviations of actual growth from that of capacity potential will soon send signals that a policy adjustment is needed. Should the nation's true growth potential exceed actual growth, for example, the disparity and lessened strain would be signaled in shorter lead times on the delivery of materials, declining overtime, and ebbing inflationary pressures. Conversely, actual growth in excess of the economy's true potential would soon result in tightened markets and other distortions which, as history amply demonstrates, would propel the economy into recession. Consequently, we must be cautious in reaching conclusions that growth in productivity and hence of potential output has as yet risen to match the evident step-up in technological advance.

The hypothesis that advancing technology has enhanced productivity growth would be more persuasive if national data on productivity increases showed a distinct improvement. To a degree, the lack of any marked pickup may be a shortcoming of the statistics rather than a refutation of the hypothesis. Faulty data could be arising in part because business purchases are increasingly concentrated in items that are expensed but which market prices suggest should be capitalized. Growing disparities between book capital and its valuation in equity markets may in part reflect widening effects of this misclassification. If this problem is indeed growing, we may be underestimating the growth of our GDP and productivity.

This classification problem compounds other difficulties with measuring output in the increasingly important service sector. The output of services—and the productivity of labor in that sector—is particularly hard to measure. In part, the statisticians have simply thrown up their hands, gauging output in some service industries just in terms of labor input. By construction, such a procedure will miss improvements in productivity caused by other inputs. In manufacturing, where output is more tangible and therefore easier to assess, measured productivity has been rising briskly, suggesting that technological advances are indeed having some effect.

Nonetheless, there is still a nagging inconsistency: The evidence of significant restructurings and improvements in technology and real costs within business establishments does not seem to be fully reflected in our national productivity measurements. It is possible that some of the frenetic pace of business restructuring is mere wheel spinning—changing production inputs without increasing output—rather than real increases in productivity. One cause of the wheel spinning, if that is what it is, may be that it takes some time for firms to adapt in such a way that major new technology is translated into increased output.

In an intriguing parallel, electric motors in the late 19th century were well-known as a technology, but were initially integrated into production systems that were designed for steam-driven power plants. It wasn't until the gradual conversion of previously vertical factories into horizontal facilities, mainly in the 1920s, that firms were able to take full advantage of the synergies implicit in the electric dynamo, thus achieving dramatic productivity increases. Analogously, existing production systems today to some degree cannot be integrated easily with new information and communication technologies. Some existing equipment is not capable of control by computer, for example. Thus, it may be that the full advantage of even the current generation of information and communication equipment will be exploited over a span of quite a few years and only after a considerably updated stock of physical capital has been put in place.

While the Federal Reserve does not need to establish targets—and definitely not limits—for long-term growth, it is helpful in coming to shorter-run policy insights to have some judgments about the growth in potential GDP in the past and what it is likely to be in the future. Judgments of potential, quite naturally, are based on experience. Through the four quarters of 1994, for example, real GDP, pressed by strong demand, rose $3\frac{1}{2}$ percent. If that were the true rate of increase in the economy's long-run potential, then we would have expected no change in rates of resource utilization. Instead, industrial capacity utilization rose nearly 3 percentage points and the unemployment rate dropped a percentage point. Moreover, we began to see signs of strains on facilities; deliveries of materials slowed appreciably and factory overtime rose sharply. These signs of developing pressures on capacity suggest that the growth rate in economic potential in 1994 was below $3\frac{1}{2}$ percent. In general, as we get close to presumed potential, we are required to step up our surveillance for inflationary pressures.

Estimates of potential growth necessarily recognize that expansion in the economy over time comes essentially from three factors—growth in population, increases in labor force participation, and gains in average labor productivity. Of these factors the first two are determined basically by demographic and social factors and seem unlikely to change dramatically over the next few years. Thus, the source of any significant pickup of output growth would need to be a more rapid pace of productivity growth. Here, the uncertainty of the pace of conversion of rapid technological advance into productivity gains is crucial to the determination.

To be fully effective in achieving potential productivity improvements, technological innovations also require a considerable amount of human investment on the part of workers who have to deal with these devices on a day-to-day basis. On this score, we still may not have progressed very far. Many workers still possess only rudimentary skills in manipulating advanced information technology. In these circumstances, firms and employees alike need to recognize that obtaining the potential rewards of the new technologies in the years ahead will require a renewed commitment to effective education and training, especially on-the-job training. This is especially the case if we are to prevent the disruptions to lives and the nation's ca

capacity to produce that arise from mismatches between jobs and workers. We need to improve the preparation for the job market our schools do, but even better schools are unlikely to be able to provide adequate skills to support a lifetime of work. Indeed, the need to ensure that our labor force has the ongoing education and training necessary to compete in an increasingly sophisticated world economy is a critical task for the years ahead.

Our Nation faces many important and difficult challenges in economic policy. Nonetheless, we have made significant and fundamental gains in macroeconomic performance in recent years that enhance the prospects for maximum sustainable economic growth. Inflation, as measured by the consumer price index, has been gradually reduced from a peak of more than 13 percent in 1979 to 2½ percent last year. Lower rates of inflation have brought a variety of benefits to the economy, including lower long-term interest rates, a sense of greater economic stability, an improved environment for household and business planning, and more robust investment in capital expenditures. The years ahead should see further progress against inflation and the eventual achievement of price stability.

We have also made considerable progress on the fiscal front. Over the past 10 years and especially since 1993, our elected political leaders, through sometimes prolonged and even painful negotiations, have been successful in reaching several agreements that have significantly narrowed the budget deficit. But more remains to be done. As I have emphasized many times, lower budget deficits are the surest and most direct way to increase national saving. Higher national saving would help to reduce real interest rates further, promoting more rapid accumulation of productive capital embodying recent technological advances. Agreement is widely shared that attaining a higher national saving rate quite soon is crucial, particularly in view of the anticipated shift in the Nation's demographics in the first few decades of the next century.

Lower inflation and reduced budget deficits will by no means solve all of the economic problems we face. But the achievement of price stability and Federal budget balance or surplus will provide the best possible macroeconomic climate in which the Nation can address other economic challenges.

For use at 2:00 p.m., E.S.T.
Tuesday
February 20, 1996

Board of Governors of the Federal Reserve System



Monetary Policy Report to the Congress Pursuant to the Full Employment and Balanced Growth Act of 1978

February 20, 1996

Letter of Transmittal

BOARD OF GOVERNORS OF THE
FEDERAL RESERVE SYSTEM
Washington, D.C., February 20, 1996

THE PRESIDENT OF THE SENATE
THE SPEAKER OF THE HOUSE OF REPRESENTATIVES

The Board of Governors is pleased to submit its Monetary Policy Report to the Congress, pursuant to the Full Employment and Balanced Growth Act of 1978.

Sincerely,

A handwritten signature in black ink, which appears to read "Alan Greenspan", is written over a horizontal line.

Alan Greenspan, Chairman

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Section 1: Monetary Policy and the Economic Outlook

The economy performed well in 1995. Moderate economic growth kept the unemployment rate at a relatively low level, and inflation, as measured by the change in the consumer price index, was in a range of 3 percent or less for the fifth straight year, the first such occurrence in thirty years. This desirable combination of low inflation and low unemployment provided further substantiation of a fundamental point that the Board has made in past reports—namely, that there is no trade-off in the long run between the monetary policy goals of maximum employment and stable prices set in the Federal Reserve Act. Indeed, it is by fostering price stability that a central bank can make its greatest contribution to the efficient operation and overall ability of the nation's economy to create jobs and advance living standards over time.

As economic prospects changed in 1995 and early 1996, the Federal Reserve found that promoting full employment and price stability required several adjustments in its policy settings. Last February, the economy still seemed to be pressing against its potential, and prices were tending to accelerate. To reduce the risk that inflation might mount, with the attendant threat to continued economic expansion, the Federal Open Market Committee raised the federal funds rate an additional $\frac{1}{2}$ percentage point, to 6 percent. Inflation did, in fact, pick up in the first part of 1995, but data released during the spring indicated that price pressures were receding, and the Committee reduced the federal funds rate $\frac{1}{4}$ percentage point at its July meeting. Through the remainder of the year, inflation was even more favorable than had been anticipated in July, and inflation expectations decreased. In addition, an apparent slowing of economic activity late in the year further reduced the potential for inflationary pressures going forward. To forestall an undue increase in real interest rates as inflation slowed, and to guard against the possibility of unnecessary slack developing in the economy, the Committee eased reserve conditions in December and again at the end of January 1996, reducing the federal funds rate by a total of $\frac{1}{2}$ percentage point.

Monetary policy easings since mid-1995 contributed to declines in short-term market interest rates, which by mid-February were down 1 to 2 percentage points from the highs reached early last year. Intermediate- and long-term rates also moved sharply

lower last year as the risks of rising inflation receded and as prospects for substantial progress in reducing the federal budget deficit seemed to improve. As of mid-February, these rates were $1\frac{1}{4}$ to $2\frac{1}{4}$ percentage points below their levels at the beginning of 1995. Helped by lower interest rates and favorable earnings, major equity price indexes rose 30 to 40 percent last year and have moved still higher in early 1996. These financial developments reduced the cost to businesses of financing investment and to households of buying homes and consumer durables; households were also aided by substantial additions to financial wealth from rising bond and equity prices.

The foreign exchange value of the U.S. dollar, measured in terms of the currencies of the other G-10 countries, fell about 5 percent, on net, during 1995. The dollar appreciated substantially from the summer on and has advanced further on balance in 1996 but not enough to offset a sharp decline that took place in the first four months of 1995. Interest rates fell in most other foreign industrial countries, which also were experiencing slower economic growth, but by less than the decline in rates in the United States. Early in 1995, the dollar also was pulled down by the reactions to the crisis in Mexico, but the negative influence on the dollar from this source appeared to lessen as Mexican financial markets stabilized over the balance of the year. Inflation rates in major industrial countries held fairly steady in 1995 at levels somewhat lower than those prevailing in this country; thus, depreciation of the dollar in real terms against other G-10 currencies was less than the depreciation in nominal terms. Against the currencies of a broader group of U.S. trading partners, the dollar's real depreciation in 1995 was even smaller.

Borrowing and spending in the United States was facilitated not only by lower interest rates but also by favorable supply conditions in credit markets. Spreads between interest rates on securities issued by private firms and those issued by the Treasury generally remained narrow, and banks continued to ease terms and qualifying standards on loans to businesses and households through most of the year. Total debt of domestic nonfinancial sectors grew slightly more than 5 percent last year, just above the midpoint of the Committee's 3 percent to 7 percent monitoring range. Rapid growth of business spending on inventories and fixed capital early in the year boosted the credit demands of firms, despite strong corporate profits.

Borrowing was also lifted by the financing of heavy net retirements of equity shares in connection with mergers and share repurchase programs. Growth of household debt slowed a bit but remained brisk; consumer credit continued to grow quite rapidly. Federal debt growth was relatively modest for a second year, influenced by a lower deficit and constraints on normal seasonal borrowing at year-end owing to the federal debt ceiling. Outstanding state and local government debt ran off more rapidly than in 1994.

Commercial banks and thrift institutions again financed a large portion of the borrowing last year; their share of total outstanding debt of nonfederal sectors edged up in 1994 and 1995 after declining for more than fifteen years. The growth in depository credit was funded primarily with deposits, boosting the expansion of the broad monetary aggregates. M3 grew 6 percent, at the upper end of its 2 percent to 6 percent annual range established by the Committee at midyear. Depositors relied heavily on large-denomination time deposits for funding, but retail deposits also showed gains as declining market interest rates made these deposits more attractive to retail customers. M2 advanced 4¼ percent, putting it in the upper portion of its 1 percent to 5 percent annual range. The expansion of M2 was the largest in six years, and its velocity was unchanged after increasing during the previous three years. Nonetheless, growth of the aggregate was erratic through the year, and the stability of its relationship to nominal spending remains in doubt. M1 declined last year for the first time since the beginning of the official series in 1959. An increasing number of banks introduced retail sweep accounts, which shift money from interest-bearing checkable accounts to savings accounts in order to reduce banks' reserve requirements. Without these shifts, M1 would have risen in 1995, although slowly.

Economic Projections for 1996

The relatively small amount of information that is available for 1996 indicates that the economy has started off slowly early this year, but fundamental conditions appear to be more encouraging than recent data might seem to suggest. Bad weather in a number of regions and the partial shutdown of the federal government have been disruptive to the economy this winter. These influences seem likely to leave only temporary imprints on spending and production, creating volatility in incoming data over the near term while having little effect on underlying trends.

The economy also has been slowed by production adjustments in some industries in which efforts are being made to bring stocks into better alignment with sales. Inventory accumulation apparently slowed in the fourth quarter, and with financial conditions remaining broadly conducive to growth of private final sales, inventory problems of a degree that might prompt a sustained period of widespread production adjustments do not seem likely. In the household sector, the accumulation of financial wealth brought on by the rise in the stock market has provided the wherewithal for increases in consumption greater than would otherwise have been expected—countering the potential negative influences of more burdensome levels of consumer debt. At the same time, reductions in mortgage interest rates have put the cost of financing a house within reach of a greater number of families and made it possible for a significant number of households to ease their debt-service burdens by refinancing their homes at lower rates. In the business sector, reductions in the cost of financing investment in new capital are providing some offset to the slowing tendencies that normally accompany a cyclical moderation in the growth of aggregate output. In addition, business investment in high-tech equipment likely will continue to be boosted not only by the ready availability of finance but also by technological upgrades and ongoing steep declines in the effective price of real computing power.

In the U.S. external sector, growth of exports strengthened after some sluggishness early in 1995. Expansion of income abroad seems likely to pick up this year, although the prospects still are subject to some downside risk. Imports, meanwhile, have slowed from the very rapid pace seen earlier in the expansion. On net, the underlying trends in exports and imports of goods and services appear to be essentially canceling out in terms of their combined contribution to growth of U.S. real GDP.

Against the backdrop of these developments, members of the Board of Governors and the Reserve Bank Presidents, all of whom participate in the deliberations of the Federal Open Market Committee, anticipate that the U.S. economy will grow moderately, with little change in underlying inflation trends. The central tendency of the participants' forecasts of real GDP growth ranges from 2 percent to 2¼ percent, measured as the cumulative change in output from the final quarter of 1995 to the final quarter of 1996. The rise in activity is expected to be accompanied by further expansion of job opportunities and little change, on net, in the civilian unemployment rate over the four quarters of 1996. The central tendency

Economic Projections for 1996

Percent

Indicator	Federal Reserve Governors and Reserve Bank Presidents		Administration
	Range	Central Tendency	
<i>Change, fourth quarter to fourth quarter¹</i>			
Nominal GDP	4–5	4¼–4¾	5.1
Real GDP ²	1½–2½	2–2¼	2.2
Consumer price index ³	2½–3	2¾–3	3.1
<i>Average level, fourth quarter</i>			
Civilian unemployment rate	5½–6	5½–5¾	5.7 ⁴

1. Change from average for fourth quarter of 1995 to average for fourth quarter of 1996.

2. Chain-weighted.

3. All urban consumers.

4. Annual average.

of the unemployment rate forecasts for the fourth quarter of 1996 is a range of 5½ percent to 5¾ percent, compared with an average of 5.6 percent in the final quarter of 1995. The Committee's forecasts of economic growth and unemployment are quite similar to those of the Administration.

The central tendency of the Governors' and Bank Presidents' forecasts of the rise in the consumer price index over the four quarters of 1996 is a range of 2¾ percent to 3 percent, a shade to the high side of the actual outcome of 1995. At this early point in 1996, with grain stocks exceptionally tight, there is some risk that food price increases at retail could be larger than those of recent years, especially if crop production should remain subpar again this year; and, even though recent upward pressures on energy prices should diminish with the return of normal weather, another year of declining prices cannot be taken as a given. Nonetheless, the experience with inflation at high levels of resource utilization was favorable in 1995, and with businesses still tightly focused on cost control and efficiency gain, broad tendencies toward increased rates of price increase are not anticipated. The Administration forecast of inflation is higher than the forecasts of the Federal Reserve officials, but the difference is not significant, given the uncertainties of forecasting.

Price increases like those being forecast for the coming year would leave inflation no higher than it

was in the first year or so of the current economic expansion, with the rate of increase holding appreciably below the average rate seen during the expansion of the 1980s. Although the Federal Reserve's long-run goal of restoring price stability has not yet been achieved, the capping of inflation and its diminution over recent business cycles is a clear indication of the substantial progress that has been made to date.

Money and Debt Ranges for 1996

The Committee's intention to make further progress over time toward price stability formed the basis for the selection of the growth ranges for the monetary aggregates in 1996. In reaffirming the ranges that were adopted on a provisional basis in July, the Committee noted that it viewed them as benchmarks for what would be expected under conditions of reasonable price stability and historical velocity behavior. The Committee set the range for M2 at 1 percent to 5 percent and the range for M3 at 2 percent to 6 percent.

Given its expectations for inflation in 1996, the Committee anticipates that nominal GDP will grow somewhat faster this year than would be the case if the economy already were at price stability. If velocities of the aggregates were to exhibit roughly normal behavior this year and nominal income were to

Ranges for Growth of Monetary and Debt Aggregates

Percent

Aggregate	1994	1995	1996
M2	1-5	1-5	1-5
M3	0-4	2-6 ¹	2-6
Debt ²	4-8	3-7	3-7

Note. Change from average for fourth quarter of preceding year to average for fourth quarter of year indicated.

1. Revised at July 1995 FOMC meeting.

2. Monitoring range for debt of domestic nonfinancial sectors

expand as anticipated by the Committee, M2 and M3 might grow near the upper ends of their ranges. In assessing the possible outcomes, the Committee noted that considerable uncertainty remains about the usefulness of the monetary aggregates in guiding the pursuit of its macroeconomic objectives. Although the monetary aggregates have been behaving more in line with historical patterns than was the case earlier in the decade, the effects of financial innovation and deregulation over the years have raised questions about the stability of the relationships between the

aggregates and nominal GDP that have yet to be resolved.

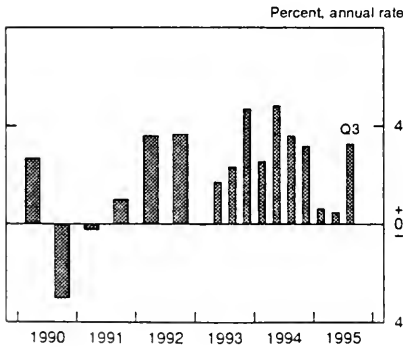
The Committee also reaffirmed the 3 percent to 7 percent growth range for debt. Although there are indications that lenders may no longer be easing terms and conditions for granting credit to businesses and households, the Committee anticipated that credit supplies would remain ample and that debt would grow at about the same pace as nominal GDP. Such increases would be consistent with containing inflation and promoting sustainable growth.

Section 2: The Performance of the Economy

Measured in terms of the chain-type indexes that are now being emphasized by the Bureau of Economic Analysis, growth of real GDP averaged slightly less than 1½ percent at an annual rate over the first three quarters of 1995 after a gain of 3½ percent in 1994. The rise in aggregate output this past year was accompanied by an increase in payroll employment of 1¼ million, and the unemployment rate, after having fallen sharply in 1994, held fairly steady over the course of 1995, keeping to a range of about 5½ percent to 5¾ percent. Consumer prices, as measured by the CPI for all items, rose 2¼ percent over the four quarters of 1995, an increase that was virtually the same as those of the two previous years.

Growth of output during the past year was slowed in part by the actions of businesses to reduce the pace of inventory accumulation after a burst of stockpiling in 1994. Final sales—a measure of current output that does not end up in inventories—rose at an average rate of 2 percent over the first three quarters of 1995 after an increase of 3 percent over the four quarters of 1994. The slowing of final sales was largely a reflection of a downshifting in growth of the real outlays of households and businesses, from elevated rates of increase in 1994 to rates that were more sustainable. Real government outlays for consumption and investment edged down slightly, on net, during the first three quarters of 1995. Increases in real exports and real imports of goods and services were smaller than those of 1994; their combined contribution to GDP growth in the first three quarters was slightly negative.

Change in Real GDP



The Household Sector

Real personal consumption expenditures rose at an annual rate of about 2¼ percent over the first three quarters of 1995 after having risen slightly more than 3 percent over the four quarters of 1994. Available data suggest that growth of real outlays slowed further in the fourth quarter. The reduced rate of rise in consumption spending this past year came against the backdrop of moderate gains in employment and income. The financial wealth of households surged, but impetus to spending from this source evidently was countered by other influences, such as increases in debt burdens among some households and an apparent rise, according to survey data, in consumers' concerns about job security.

Real consumer expenditures for durable goods increased at an annual rate of 2¼ percent over the first three quarters of 1995, a slower rate of rise than in other recent years. Consumer expenditures for motor vehicles declined slightly, on net, over the first three quarters after moving up nearly 20 percent over the three previous years; in the fourth quarter, unit sales of cars and light trucks, a key indicator of real outlays for vehicles, were down slightly from their third-quarter pace. Incentive programs that provided price concessions of one sort or another to buyers probably gave some lift to sales in 1995. However, "pent-up" demand, which had helped to boost sales earlier in the expansion, probably was no longer an important factor. Recent sales data do not seem to point to any big shifts in demand for vehicles around the turn of the year: The average rate of sales of cars and light trucks in December and January was a touch above the average for 1995 as a whole.

Real outlays for durable goods other than motor vehicles continued to rise at a brisk pace in 1995, but not so rapidly as in other recent years. Spending for furniture and household equipment hit a temporary lull in the first part of 1995, but picked up again over the next two quarters, lifted in part by a rebound in construction of new houses. Fourth-quarter data on retail sales seem to point to a further sizable increase in outlays for household durables: according to most anecdotal accounts, spending for home computers and other electronic gear, which has been surging in recent years, continued to move up rapidly through the latter part of 1995.

Consumer expenditures for nondurables increased at an annual rate of about 1½ percent, in real terms.

over the first three quarters of 1995, a little less than the average of the previous ten years and considerably less than in 1994. The growth of real expenditures on apparel slowed sharply after three years of sizable advances. In the fourth quarter, real outlays for non-durables appear to have been lackluster.

Real expenditures for services—which account for more than half of total consumer outlays—increased at an annual rate of about 2¼ percent over the first three quarters of 1995, moderately faster than in either 1993 or 1994. After declining in 1994, outlays for energy services increased sharply over the first three quarters of 1995: The unusually mild weather of late 1994 gave way, first, to more normal winter conditions in early 1995 and, later on, to hot summer weather that lifted fuel requirements for cooling. Spending gains for other categories of services proceeded at an annual rate of about 2¼ percent over the first three quarters of 1995, about the same rate of rise as in the two previous years.

Real disposable personal income rose at an average annual rate of about 2½ percent over the first three quarters of 1995, a gain that was about in line with the previous year's increase. Monthly data through November suggest that growth of real income may have picked up a little in the fourth quarter. Nominal personal income appears to have increased slightly faster in 1995 than it did in 1994, and growth of nominal disposable income, which excludes income taxes, apparently held close to its 1994 pace. Inflation continued to take only a moderate bite from increases in nominal receipts: The chain-type price index for personal consumption expenditures rose at an annual rate of 2½ percent over the first three quarters of

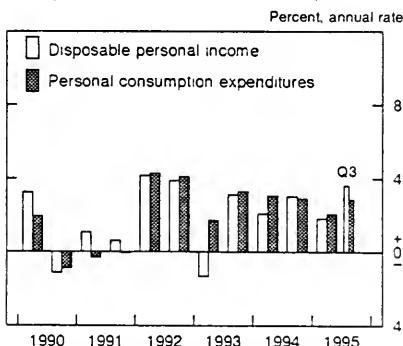
1995, matching, almost exactly, the increases in each of the two previous years.

After little change during 1994, the real value of household wealth surged in 1995. The value of assets was boosted substantially by huge increases in the prices of stocks and bonds. Liabilities continued to rise fairly rapidly but at a rate well below the rate of increase in household assets; rapid growth of consumer credit was again the most notable feature on the liability side. Behind these aggregate measures of household assets and liabilities was some wide variation in the circumstances of individual households. Appreciation of share prices and the rally in the bond market provided a substantial boost to the wealth of households holding large amounts of those assets. However, households holding few such assets benefited little from the rally in securities prices, and some of these households began to experience greater financial pressure in 1995. Debts taken on earlier proved to be difficult to repay in some instances, and a rising number of households saw their loans fall into delinquency. Overall, however, the incidence of financial stress among households appears to have been limited, as sustained increases in personal income helped to facilitate timely repayment of obligations.

Consumers maintained relatively upbeat perceptions of current and future economic conditions during 1995. The measure of consumer confidence that is prepared by the Conference Board held fairly steady at a high level. The index of consumer sentiment that is compiled by the University of Michigan Survey Research Center edged down a little, on net, from the end of 1994 to the end of 1995, but its level also remained relatively high. By contrast, some survey questions dealing specifically with perceptions of labor market conditions pointed to increased concerns about job prospects during the year: although employment continued to rise in the aggregate, announcements of job cuts by some major corporations may have rekindled consumers' anxieties about job security. In January of this year, consumer assessments of labor market conditions softened further, and the broader indexes of sentiment also declined. The January levels of the indexes were on the low side of their averages of the past couple of years but were well above levels that were reported through most of the first three years of the expansion.

Consumers tended to save a slightly higher proportion of their income in 1995 than they had in 1994. Large increases in financial wealth usually cause households to spend a greater share of their current income, thereby reducing the share of income that is

Change in Real Income and Consumption



saved. However, rising debt burdens and increased nervousness about job prospects would work in the opposite direction, and these influences may have offset the effect of increases in wealth. Some households also may have started focusing more intently on saving for retirement, especially in light of increased political debate about curbing the growth of entitlements provided under government programs. Nonetheless, the personal saving rate for all of 1995, while moving up a little, remained in a range that was relatively low by historical standards.

Residential investment fell in the first half of 1995 but turned up in the third quarter. Both the downswing in the first half and the subsequent rebound after midyear appear to have been shaped, at least in a rough way, by swings in mortgage interest rates. Although housing activity had been slow to respond to increases in mortgage interest rates through much of 1994, sizable declines in sales of new and existing homes started to show up toward the end of that year, and by early 1995, permits and starts also were dropping. However, the decline in activity proved to be relatively short and mild. By March, mortgage interest rates already were down appreciably from the peaks of late 1994, and midway through the second quarter, most indicators of housing activity were starting to rebound. Sales of new homes surged to especially high levels during the summer, and permits and starts of single-family units rose appreciably. In the autumn, sales retreated from their midyear peaks. Starts also slipped back somewhat during the autumn, but permits held firm.

The intra-year swings in the various housing indicators left the annual totals for these indicators at

fairly elevated levels. The average pace of sales of existing homes over the first eleven months of 1995 was well above the average for the 1980s, even after adjusting for increases in the stock of houses. Starts and sales of new single-family dwellings in 1995 were about one-tenth higher than their averages for the 1980s. So far in the 1990s, demographic influences have been less supportive of housing activity than in the 1980s, as the rate of household formation has lagged—in part because many young adults have delayed setting up their own domiciles. However, offsetting impetus to demand has come from the improved affordability of housing, brought about in particular by declines in mortgage interest rates.

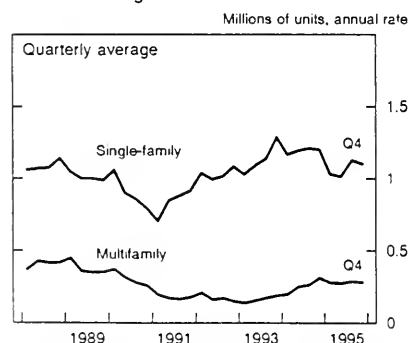
Construction of multifamily units, after taking a notable step toward recovery in 1994, rose only moderately further in 1995. Over the first eleven months of 1995, starts of multifamily units amounted to 280,000 at an annual rate, compared with about 260,000 the previous year and a low of 162,000 in 1993. Financing for the construction of new multifamily projects appeared to be readily available this past year. However, the national vacancy rate for multifamily rental units, while down from the peaks of a few years ago, remained relatively high, and increases in rents were not of a magnitude to provide much incentive for the construction of new units.

The Business Sector

Most indicators of business activity remained favorable in 1995, but strength was less widespread than it had been in 1994, and growth overall was less robust. The output of all nonfarm businesses rose at an annual rate of slightly less than 2 percent over the first three quarters of 1995, after a gain of 4 percent in 1994—a pace that could not have been sustained given already high operating levels. Inventory problems cropped up in some lines of manufacturing and trade in 1995 and prompted production adjustments. Scattered structural problems were apparent as well, especially in parts of retail trade in which intense competition for market share caused financial losses and eventual bankruptcy for some enterprises. More generally, however, business profits remained high in 1995, as firms continued to emphasize strategies that have served them well throughout the 1990s—most notably, tight control over costs and rapid adoption of new technologies, achieved by way of heavy investment in high-tech equipment.

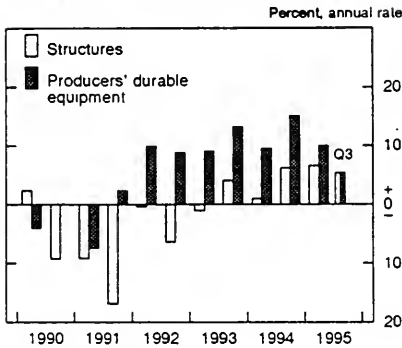
In total, real business fixed investment increased at an annual rate of 8 percent over the first three quarters

Private Housing Starts



Note: Data points for 1995 Q4 are the averages for October and November

Change in Real Business Fixed Investment



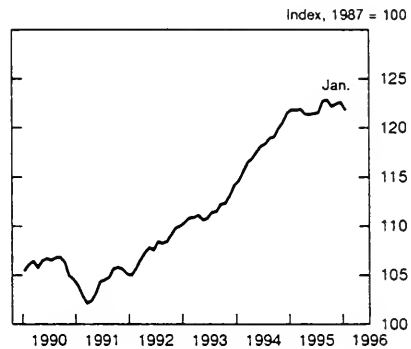
of 1995 after a gain of 10 percent in 1994. Growth in business spending for equipment continued to outpace the growth of investment in structures, even though the latter scored its largest gain of the past several years. On a quarterly basis, investment remained very strong through the first quarter of 1995. After slowing sharply in the spring, it then picked up somewhat in the third quarter. Fragmentary data for the fourth quarter suggest that investment in plant and equipment recorded a gain of at least moderate size in that period.

Businesses continued to invest heavily in computers in 1995. In real terms, these expenditures rose at an annual rate of nearly 30 percent over the first three quarters of the year, an increase that was even more rapid than that of 1994. Excluding computers, real investment outlays increased less rapidly, on balance, than in 1994, and growth after the first quarter was modest, on net. In the equipment category, outlays for information-processing equipment other than computers moved up at an annual rate of about 13 percent in the first half of 1995 but fell back a little in the third quarter. Spending for industrial equipment followed a roughly similar pattern, with a small third-quarter decline coming on the heels of large gains in the first half of the year. Real outlays for transportation equipment declined in the second quarter but rebounded in the third. Real investment in nonresidential structures moved up in each of the first three quarters of 1995, at an annual rate of more than 6 percent, on average, after a gain of 3½ percent during 1994; the most recent year brought increased construction of most types of nonresidential buildings.

In the industrial sector, elevated levels of investment in equipment and structures in 1995 led to a

gain of about 4 percent in industrial capacity. However, in a turnabout from the outcome of the previous year, output of the industrial sector rose considerably less rapidly than capacity: A gain of 1½ percent in total industrial production over the four quarters of 1995 was a sharp slowdown from a 1994 rise of more than 6½ percent. Production of consumer goods followed a choppy pattern during 1995 and rose less than ½ percent over the year as a whole, the smallest annual increase of the current expansion. The output of business equipment advanced in each quarter, but a cumulative gain of 4½ percent for this category was smaller than the increases of other recent years. Production of materials faltered temporarily in the second quarter, but production gains resumed thereafter, leading to a rise of about 2¼ percent over the four quarters of the year.

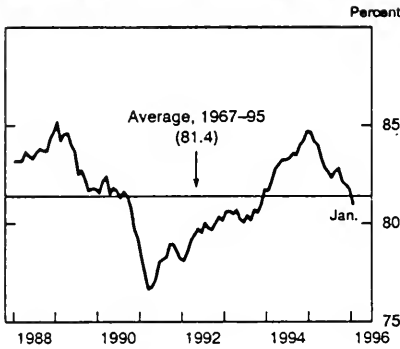
Industrial Production



With capacity expanding rapidly and production growth slowing, the rate of capacity utilization in industry turned down sharply in 1995, backing away from the high operating rates of late 1994. As of this past December, the utilization rate in manufacturing was about ½ percentage point above its long-term average. In January of this year, utilization rates fell noticeably: Vehicle producers reduced assembly rates last month, and winter storms temporarily shut down manufacturing operations more generally.

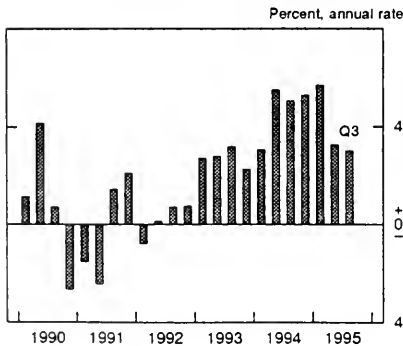
After rising rapidly during 1994, business inventories continued to build at a substantial pace in the early part of 1995. By the end of the first quarter, real inventories of nonfarm businesses were about 5½ percent above the level of a year earlier. Meanwhile, strength that had been evident in final sales during 1994 gave way to more subdued growth in the

Manufacturing Capacity Utilization Rate



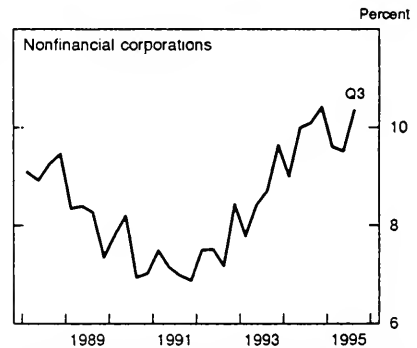
first quarter of 1995, and the ratio of inventories to sales rose. In the second and third quarters, growth of inventories was roughly in line with growth of business final sales; consequently, aggregate inventory-sales ratios held fairly steady during this period. Although data on inventory change in the year's final quarter are not yet complete, the available indicators suggest that significant imbalances probably were present in only a few industries at year-end. Potential for wider inventory problems appears to have been contained through a combination of production restraint late in 1995, caution in ordering merchandise from abroad, and discounting by some retailers during the holiday shopping season. Wholesalers reduced their inventories in the final two months of 1995, and manufacturers' stocks rose only slightly; aggregate inventory-sales ratios moved down in both sectors.

Change in Real Nonfarm Business Inventories



Business profits rose further over the first three quarters of 1995. Economic profits of all U.S. corporations increased at an annual rate of nearly 11 percent, a pace similar to that seen over the four quarters of 1994. The profits of corporations from their operations in the rest of the world moved up sharply, on net, and earnings from domestic operations also continued to advance. The strongest gains in domestic profits came at financial corporations and reflected, in part, an increased volume of lending by financial institutions, reduced premiums on deposit insurance at commercial banks, and rising profits of securities dealers. The economic profits earned by nonfinancial corporations from their domestic operations rose at an annual rate of about 3½ percent over the first three quarters of 1995 after three years in which the annual increases were 15 percent or more. A moderation of output growth at nonfinancial corporations and a flattening of the rise in profits per unit of output both worked to reduce the rate of growth in nominal earnings in 1995. Nonetheless, with unit costs also moving up at a moderate pace, the share of the value of nonfinancial corporate output that ended up as profits changed little, on net, in the first three quarters, holding in a range that was relatively high in comparison to the average profit share over the past couple of decades.

Before-Tax Profit Share of GDP



Note. Profits from domestic operations with inventory valuation and capital consumption adjustments, divided by gross domestic product of nonfinancial corporate sector.

The Government Sector

At the federal level, combined real outlays for investment and consumption fell at an annual rate of about 4¼ percent over the first three quarters of 1995.

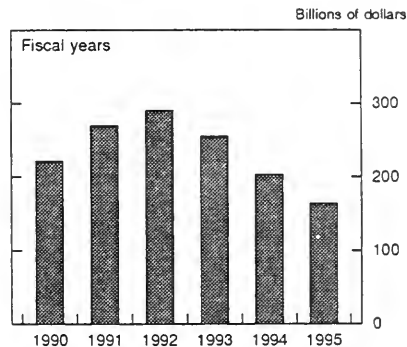
dropping to a level about 13 percent below its annual peak in 1990. Both investment and consumption were cut back over the first three quarters of 1995. Outlays for defense continued to contract, and nondefense expenditures turned down, reversing a moderate increase that took place over the four quarters of 1994.

Federal outlays in the unified budget, which covers items such as transfers and grants, as well as consumption and investment expenditures other than the consumption of fixed capital, rose 3¼ percent in nominal terms in fiscal 1995, matching almost exactly the percentage rise of the previous fiscal year. Nominal outlays for defense declined 3¼ percent in both fiscal 1995 and fiscal 1994. Outlays for social security increased about 5 percent in both years. Spending for Medicare and Medicaid continued to rise at rates appreciably faster than the growth of nominal GDP. Net interest payments jumped in fiscal 1995 after three years of relatively little change, but, working in the other direction, net outlays for deposit insurance were more negative than in 1994 (i.e., the margin between insurance premiums and the payout for losses increased). Proceeds from auctions of spectrum rights also helped to hold down expenditures: like the premiums for deposit insurance, these proceeds enter the budget as a negative outlay. In the first three months of fiscal 1996—i.e., the three-month period ended in December—federal outlays were about 1 percent lower in nominal terms than in the comparable period of fiscal 1995. Nominal outlays for defense have continued to trend down this fiscal year, and the spending restraint embodied in recent continu-

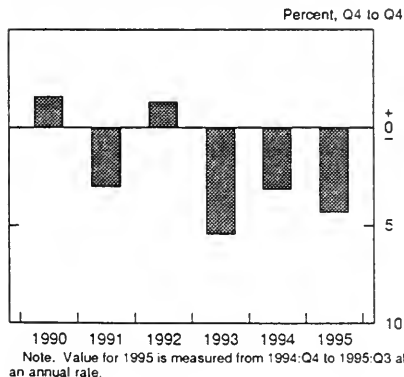
ing budget resolutions has translated into sharp cuts in nondefense outlays.

Federal receipts rose 7½ percent in fiscal 1995, after having increased 9 percent in fiscal 1994. In both years, categories of receipts that are most closely related to the state of the economy showed sizable increases. With receipts moving up more rapidly than spending in fiscal 1995, the federal budget deficit fell for a third consecutive year, to \$164 billion. Progress in reducing the deficit in recent years has come from cyclical expansion of the economy, tax increases, non-recurring factors such as the sale of spectrum rights, and adherence to the budgetary restraints embodied in the Budget Enforcement Act of 1990 and the Omnibus Budgetary Reconciliation Act of 1993.

Federal Unified Budget Deficit



Change in Real Federal Expenditures on Consumption and Investment

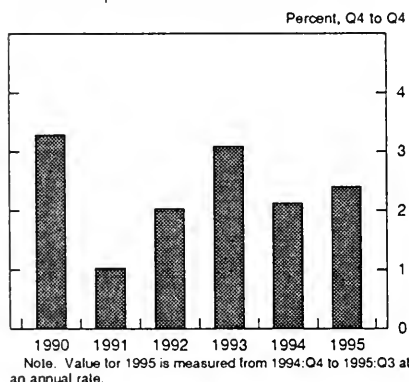


The economic expansion also has helped to relieve budgetary pressures that many state and local governments were experiencing earlier in the 1990s. Excluding social insurance funds, surpluses in the combined current accounts of state and local governments were equal to about ½ percent of nominal GDP in the first three quarters of 1995; this figure was more than double the average for 1991 and 1992, when budgetary pressures were most severe.

Even so, state and local budgets remain at the center of strongly competing pressures, with the demand for many of the services that typically are provided by these governments continuing to rise at a time when the public also is expressing desire for tax relief. Although states and localities have responded to these pressures in different ways, the aggregate picture is one in which expenditures and revenues have continued to rise faster than nominal GDP—but

by smaller margins than in the early part of the 1990s. In total, the current expenditures of state and local governments, made up mainly of transfers and consumption expenditures, were equal to about 12½ percent of nominal GDP in the first three quarters of 1995, up slightly from the percentages of the two previous years and about 1¾ percentage points higher than the comparable figure for 1989. Total receipts of state and local governments were equal to about 13¾ percent of nominal GDP in the first three quarters of 1995, up just a touch from the comparable percentages of the two previous years but about 1¼ percentage points higher than the percentage in 1989.

Change in Real State and Local Expenditures on Consumption and Investment



State and local outlays that are included in GDP have been rising less rapidly than the current expenditures of these jurisdictions, because GDP excludes transfer payments, which have been growing faster than other outlays. In real terms, combined state and local outlays for consumption and investment increased at an annual rate of about 2½ percent over the first three quarters of 1995. Real investment expenditures, which consist mainly of outlays for construction, moved up at an annual rate of almost 7 percent. By contrast, consumption expenditures, which are about four times the size of investment outlays, rose only modestly in real terms—at an average annual rate of about 1½ percent.

The External Sector

Growth of real GDP in the major foreign industrial countries other than Japan slowed sharply in

1995 from the robust rates of 1994. In Canada, where economic activity had been particularly vigorous through the end of 1994, the slowdown reflected weaker U.S. growth and macroeconomic policies intended to achieve improved fiscal balance and to prevent the reemergence of inflationary pressures. In Germany and the other European economies, appreciation of their currencies in terms of the dollar during the early months of the year and efforts to reduce public sector deficits contributed to the decline in the rate of real output growth. In contrast, Japan showed some tentative signs of recovery late in 1995 after almost no growth during the previous three years.

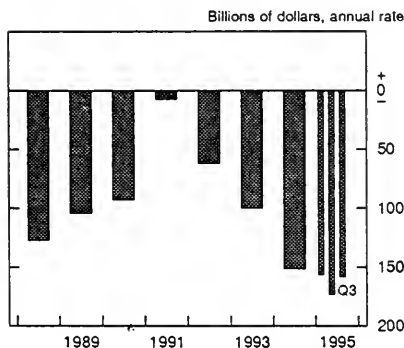
With the expansion of real GDP slowing in the foreign G-10 countries at a time when some slack remained, inflation stayed low. The average rate of consumer price inflation in these countries remained about 2 percent last year, essentially the same as in 1994 and somewhat less than in the United States.

Economic growth in the major developing countries slowed on average in 1995 from the strong pace recorded for 1994. The substantial contraction of economic activity in Mexico had important effects on U.S. trade, but real output also slowed in other developing countries, including Argentina. In response to the December 1994 collapse of the Mexican peso, the Mexican government adopted a set of policies intended to tighten monetary conditions, maintain wage restraint, and reduce government spending in order to mitigate the inflationary impact of the peso's devaluation and to achieve significant reduction in the current account deficit in 1995. Through the third quarter, the Mexican current account was approximately balanced; a deficit of about \$20 billion had cumulated during the comparable three quarters of 1994. The merchandise trade balance improved to moderate surplus in 1995 from a substantial deficit in 1994. The improved trade performance in part reflected a severe contraction in aggregate demand. Mexican real output fell sharply early in the year but picked up toward the end of the year, for an annual decline of nearly 7 percent.

The newly industrializing economies in Asia—for example, Malaysia, Korea, and Taiwan—continued to grow rapidly during 1995, at about the same rate as in 1994. Although growth in most of these countries was driven by a strong expansion in internal demand, especially in investment, most countries also benefited from very fast export growth. The marked acceleration in exports was attributable at least in part to a real depreciation of their currencies against the yen and key European currencies during the early part of the year.

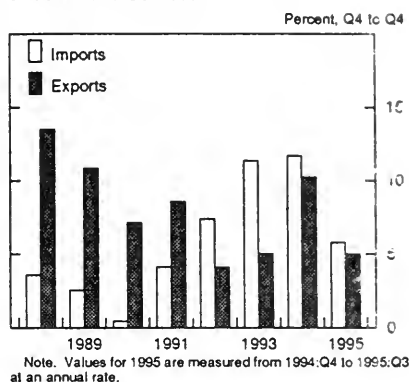
In the first eleven months of 1995 the nominal U.S. trade deficit in goods and services reached about \$115 billion at a seasonally adjusted annual rate, a level slightly greater than the \$106 billion recorded for 1994. U.S. income growth in 1995 was similar to the average for our trading partners, but, as is typically the case, comparable increases in income seemed to bring forth an increase in U.S. demand for imports that was larger than the average increases in demand for our exports by the foreign countries with which we trade. Effects of the dollar's depreciation during 1994 and early 1995 worked in the opposite direction, tending to boost exports and hold down imports. Overall, the result of these offsetting tendencies was that the dollar value of exports grew somewhat faster than the dollar value of imports through November. Nonetheless, with the level of imports exceeding the level of exports at the start of the year, these growth rates translated into a slightly larger deficit. The current account deficit averaged about \$160 billion at an annual rate during the first three quarters of 1995. Both the trade deficit and the deficit on net investment income widened somewhat, resulting in an increase from the \$150 billion current account deficit experienced in 1994.

U.S. Current Account



Real exports of goods and services grew at an annual rate of about 5 percent over the first three quarters of 1995. Agricultural exports remained at elevated levels, and the volume of computer exports continued to rise sharply. Other merchandise exports expanded in real terms at a marginally slower rate than did the total; within this broad category, machinery and industrial supplies accounted for the largest increases. Tabulation of the export data by country of

Change in Real Imports and Exports of Goods and Services



destination showed divergent patterns: Exports to Mexico dropped in response to the economic crisis in that country, but shipments to developing countries in Asia rose sharply. Exports to Western Europe, Canada, and Japan increased as well.

Imports of goods and services increased at an annual rate of about 6 percent in real terms during the first three quarters, a slower rate of advance than during 1994. Imports of computers and semiconductors rose sharply, but imports of other machinery, consumer goods and industrial supplies slowed. Import prices increased about 2½ percent in the twelve months ending in December 1995. An end to the very rapid rise in world non-oil commodity prices and low inflation abroad helped to restrain the rise in import prices.

In the first three quarters of 1995, recorded net capital inflows into the United States were substantial and nearly balanced the deficit in the U.S. current account. Sharp increases were reported in both foreign assets in the United States and U.S. assets abroad.

Foreign official asset holdings in the United States increased almost \$100 billion through September. These increases reflected both intervention by certain industrial countries to support the foreign exchange value of the dollar and very substantial accumulation of reserves by several developing countries in Asia and Latin America. Private foreign assets in the United States also rose rapidly. Net purchases of U.S. Treasury securities by private foreigners totaled \$97 billion, an amount far exceeding previous

records. Net purchases of U.S. government agency bonds and corporate bonds were also very large.

Direct investment inflows reached almost \$50 billion in the first three quarters of 1995; this total was about equal to the inflow during all of 1994 and almost matched the record pace of 1989. Mergers and acquisitions added substantially to the inflow of funds from foreign direct investors in the United States. U.S. direct investment abroad was even larger than foreign direct investment in the United States and also approached previous peak rates. U.S. net purchases of foreign stocks and bonds were up from 1994, but below the 1993 peak rate. The bulk of the net U.S. purchases of foreign securities were from the industrial countries; net purchases from emerging markets played a relatively small role.

Labor Markets

The number of jobs on nonfarm payrolls increased 1¼ million over the twelve months ended in December 1995. After a sharp rise during 1994, gains in employment slowed in the first part of 1995, and the second quarter brought only a small increase. Thereafter, increases picked up somewhat. Nearly 450,000 jobs were added in the final three months of the year, a gain of about 1½ percent at an annual rate. In January of this year, with the weather keeping many workers at home during the reference week for the monthly survey of establishments, payroll employment fell sharply.

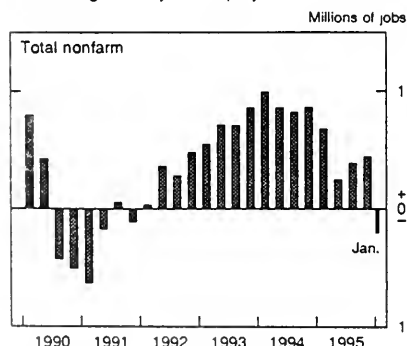
As in 1994, increases in payroll employment in 1995 came mainly in the private sector of the econ-

omy, but gains there were more mixed than those of 1994. In manufacturing, employment fell about 160,000 over the twelve months ended in December, reversing almost half of the previous year's gain. Losses were concentrated in industries that produce nondurables. A decline this past year in the number of jobs at apparel manufacturers was one of the largest ever in that industry. Sizable reductions in employment also were reported by manufacturers of textiles, tobacco, leather products, and petroleum and coal. In many of these industries, cyclical deceleration of the economy in 1995 compounded the effects of adjustments stemming from longer-run structural changes. In contrast to the widespread contraction in employment among producers of nondurables, employment at the manufacturers of durable goods increased slightly during 1995. Hiring continued to expand briskly at firms that produce business equipment. Metal fabricators also sustained growth in employment but at a slower pace than in 1994. The number of jobs in transportation equipment declined, on net.

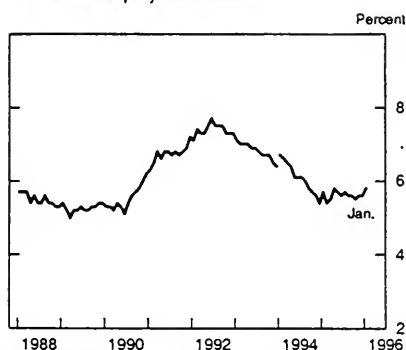
In most other sectors of the economy, employment rose moderately last year. The number of jobs in construction increased 140,000 over the twelve months ended in December, a rise of more than 3 percent. In the private service-producing sector, which now accounts for about three-fourths of all jobs in the private sector, employment increased 1.7 million in 1995 after having advanced 2.6 million in 1994. Establishments that are involved in wholesale trade continued to boost payrolls at a relatively brisk pace in 1995. Retailers also added to employment but at a considerably slower rate than in 1994; within retail trade, employment at apparel outlets fell substantially last year, and payrolls at stores selling general merchandise dropped moderately after a large increase in 1994. Providers of health services added slightly more jobs than in other recent years. At firms that supply services to other businesses, employment growth was sizable again in 1995 but less rapid than in either of the two previous years; in this category, providers of computer services expanded their job counts at an accelerated pace in 1995, but suppliers of personnel—a category that includes temporary help agencies—added jobs at a much slower rate than in other recent years.

Results from the monthly survey of households showed the civilian unemployment rate holding in a narrow range throughout 1995, and the rate reported in December—5.6 percent of the labor force—was near the midpoint of that narrow range. In January of this year, the unemployment rate ticked up to 5.8 percent.

Net Change in Payroll Employment



Civilian Unemployment Rate



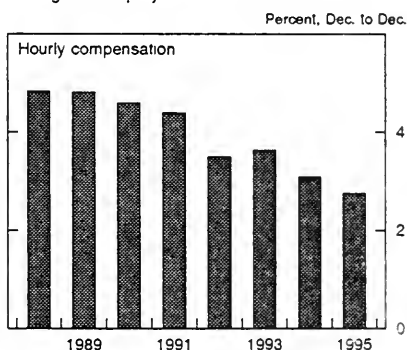
Note. The break in data at January 1994 marks the introduction of a redesigned survey; data from that point on are not directly comparable with the data of earlier periods.

The proportion of working-age persons choosing to participate in the labor force edged down slightly, on net, over the course of 1995. It has changed little, on balance, since the start of the 1990s. By contrast, the two previous decades brought substantial net increases in labor force participation, although longer-term trends during the two decades were interrupted at times by spells of cyclical sluggishness in the economy. Two or three years ago, cyclical influences also seemed to be a plausible explanation for the sluggishness of labor force participation in the current business expansion. But, with the participation rate remaining sluggish as job opportunities have continued to expand, the evidence is pointing increasingly toward a slower rate of rise in the trend of participation. Slower growth of participation will tend to limit the growth of potential output, unless an offsetting rise is forthcoming in the trend of productivity growth. So far in the current expansion, measured increases in productivity seem to have followed a fairly typical cyclical pattern, with larger increases early in the expansion and smaller gains, on average, in subsequent years. Overall, however, this pattern has not yielded evidence of a significant pickup in the longer-term trend of productivity growth.

The average unemployment rate for all of 1995 was about $\frac{1}{2}$ percentage point below the average for 1994, and it was only a little above the levels to which the unemployment rate fell in the latter stages of the long business expansion of the 1980s. The low unemployment rates reached back then proved to be unsustainable, as they eventually were accompanied by a significant step-up in the rate of inflation, brought on in

part by faster rates of rise in hourly compensation and unit labor costs. The current expansion, in contrast, has remained relatively free of increased inflation pressures working through the labor markets. The employment cost index for hourly compensation of workers in private nonfarm industries rose only 2.8 percent over the twelve months ended in December, the smallest annual increase on record in a series that goes back to the start of the 1980s. Hourly wages increased 2.8 percent during the past year, the same relatively low rate of increase as in 1994. The cost of fringe benefits, prorated to an hourly basis, rose only 2.7 percent last year, the smallest annual rise on record. With many firms still undergoing restructurings and reorganizations, many of which have involved permanent job losses, workers probably have been more reluctant to press for wage increases than they normally would have been during a period of tight labor markets. Also, firms have been making unprecedented efforts to gain better control over the rate of rise in the cost of benefits provided to employees, especially those related to health care. Although some of these efforts may have only a one-time effect on the level of benefit costs, groundwork also seems to have been laid for slower growth of benefits over time than would otherwise have prevailed.

Change in Employment Cost Index



Note. Private industry, excluding farm and household workers.

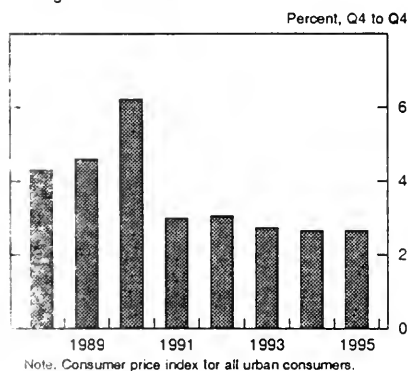
Prices

Early in 1995, inflation pressures that had started building in 1994 seemed to be gaining in intensity. Indexes of spot commodity prices continued to surge in the early part of last year, and in the producer price index, materials prices recorded some of the largest

monthly increases of the past decade and a half. Consumer prices also began to exhibit some upward pressure, with the index for items other than food and energy moving up fairly rapidly over the first four months of the year.

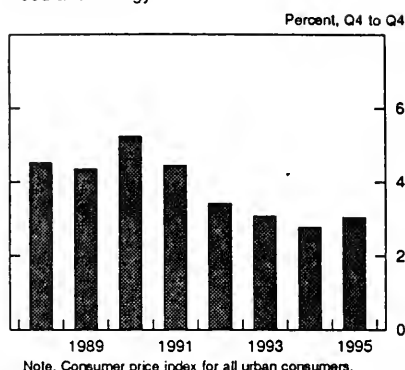
The surge in inflation proved to be relatively short-lived, however. The spot prices of industrial commodities turned down in the spring of the year and fell further, on net, after midyear. Price increases for intermediate materials slowed in the second and third quarters of 1995, and by the final quarter of the year these prices also were declining. Monthly increases in the core CPI slowed in May; thereafter, increases generally were small over the remainder of the year. The slowing of the economy after the start of the year appears to have cut short the buildup of inflationary pressures before they could have much effect on the underlying processes of wage and price determination. In the end, the rise in the CPI excluding food and energy from the final quarter of 1994 to the final quarter of 1995 amounted to 3 percent, an increase that differed little from those of the two previous years. The increase in the total CPI in 1995 came in at 2¾ percent, the fifth consecutive year in which it has been in a range of 3 percent or less.

Change in Consumer Prices



In the aggregate, rates of price increase held fairly steady for both goods and services this past year. The CPI for commodities other than food and energy rose 1¾ percent over the four quarters of 1995 after increases of 1½ percent in both 1993 and 1994. The last three-year period in which prices of these goods rose by such small amounts came in the middle part of the 1960s. Apparel prices continued to decline last

Change in Consumer Prices Excluding Food and Energy



year but not so rapidly as in the previous year. Price increases for vehicles moderated. The 1995 rise in the CPI for services other than energy was 3¾ percent; although this increase exceeded the 1994 rise by a slight amount, the results for both years were among the smallest increases for this category in the last three decades.

Trends in food prices and energy prices remained favorable to consumers in 1995. The rise in food prices from the final quarter of 1994 to the final quarter of 1995 was slightly more than 2½ percent, almost exactly the same as the increases of the two previous years. The last yearly increase in food prices in excess of 3 percent came five years ago, in 1990. In the intervening years, production adjustments by farmers and weather problems of one sort or another have caused temporary surges in the prices of some farm commodities, but these surges have not resulted in widespread pressures on food prices at the retail level. Moderate rates of increase in the costs of non-farm inputs that contribute heavily to value added have been an important anchor in the setting of food prices at the consumer level. Also, if only by chance, years of poor crops—like that of 1995, when grain and oilseed production plummeted—have tended to be interspersed with years of good crops, a pattern that has prevented sustained upward pressures on farm and food prices. In the energy area, prices at the consumer level fell 1¾ percent, on net, over the four quarters of 1995, more than reversing a moderate 1994 increase. Gasoline prices dropped nearly 5 percent, on net, over the four quarters of the year, and consumer prices of natural gas also declined appre-

ciably. However, some upward pressures developed late in 1995 and early this year, largely in response to unexpectedly cold temperatures that boosted fuel requirements for winter heating.

All told, the price developments of 1995 appear to have left a favorable imprint on expectations of future rates of inflation, if results from various surveys of consumers and forecasters are an accurate reflection of the views held by the broader public. Monthly responses to the surveys tend to bounce around somewhat, but over 1995 as a whole, average readings of

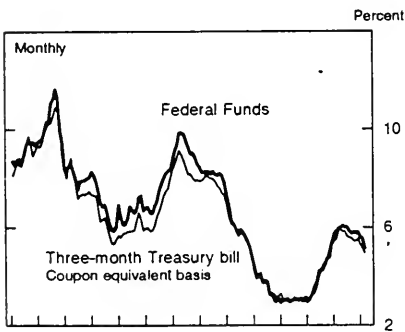
anticipated price increases one year into the future were slightly lower than those of 1994, and survey responses about inflation prospects over the longer term came down more substantially. Although the responses regarding expected inflation still tended, on balance, to run to the high side of actual rates of price increase, the easing of inflation expectations this past year provided another encouraging sign that inflation processes that helped to undermine other recent business expansions are still in check in the current expansion.

Section 3: Financial, Credit, and Monetary Developments

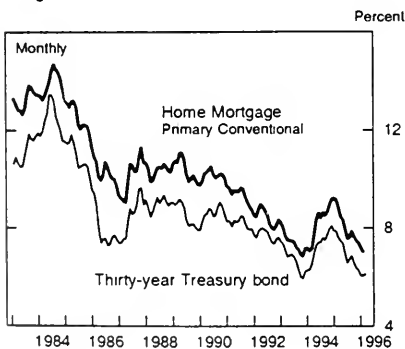
In 1995 and early 1996, the Federal Reserve had to adjust its policy stance several times to promote credit market conditions supportive of sustained growth with low inflation. At the beginning of 1995, some risk remained that inflation might rise. To provide additional insurance against that development, the Federal Open Market Committee (FOMC) tightened reserve conditions, raising the intended federal funds rate $\frac{1}{2}$ percentage point, to 6 percent, thereby extending the episode of policy firming that had begun one year earlier. As time passed, it became clear that these policy tightenings had been successful in containing inflationary pressures, and the System initiated $\frac{1}{4}$ point reductions in the federal funds rate in July and December of 1995 and January of 1996.

Domestic Interest Rates

Short-Term



Long-Term



Most market interest rates had peaked before the policy tightening last February. During the spring, interest rates declined appreciably, as market participants increasingly came to believe that no additional policy restraint would be forthcoming, and, indeed, that easing might be in the cards. Mounting evidence that the growth of spending had downshifted and price pressures were muted, along with greater hopes that substantial progress would be made toward reducing the federal budget deficit, contributed to the change in attitudes and to the drop in interest rates, especially longer-term rates. On balance during 1995, interest rates dropped 1 to $2\frac{1}{2}$ percentage points, with the largest declines registered on intermediate- and long-term securities. This year, short- and intermediate-term interest rates have fallen somewhat further, while long-term rates are unchanged to a little higher.

During the first part of last year, expectations of lower U.S. interest rates relative to other G-10 countries and other factors such as the crisis in Mexico contributed to a 10 percent depreciation of the trade-weighted exchange value of the dollar. By year-end, though, the dollar had retraced about half of these losses, and it has appreciated further on balance in 1996.

The course of interest rates during the year influenced overall credit flows and their composition. The expansion of the total debt of domestic nonfinancial sectors was relatively strong during the first half of the year but moderated later in 1995. For the year, debt grew $5\frac{1}{4}$ percent, a bit above the midpoint of its annual growth range. Initially, household and non-financial business credit demands were concentrated in floating-rate or short-term debt instruments. As the yield curve flattened, credit demands shifted to fixed-rate, long-term debt instruments.

Because depository institutions are important sources of short-term and floating-rate credit to households and businesses, depository assets grew rapidly early on and then backed off. The need to fund the increase in assets, along with declines in market interest rates relative to yields on retail deposits, led to the fastest growth in M2 and M3 since the late 1980s: M2 ended the year in the upper part of its annual range, and M3 was at the upper end of its range. In contrast, M1 declined for the first time since the beginning of the official series in 1959, as many banks introduced retail sweep accounts that shifted deposits from

interest-bearing checking accounts to savings-type accounts in order to reduce reserve requirements.

The Course of Policy and Interest Rates

The Federal Reserve entered 1995 having tightened policy appreciably during the previous year. Short-term interest rates had risen more than 2½ percentage points from the end of 1993, and long-term rates were up 2 percentage points. Policy tightening had been necessitated by the threat of rising inflation posed by unusually low real short-term interest rates earlier in the 1990s. Rates had been kept low to counter the effects of impediments to credit flows and economic growth. But as these impediments were reduced, the economy expanded at an unsustainable pace and margins of underutilized labor and capital began to erode. Ultimately, absent a firmer policy, excessive demands on productive resources and resulting higher inflation would have produced strains, threatening economic expansion.

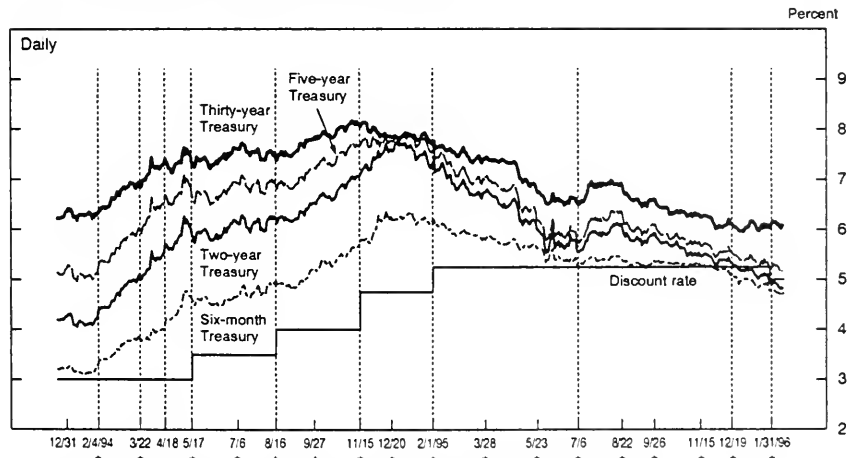
In early February the policy actions taken in 1994 did not appear to be sufficient to head off inflationary pressures. The growth of economic activity had not shown convincing signs of slowing to a more sustainable pace, and available information, including a

marked rise in materials prices during the last half of 1994, seemed indicative of emerging resource constraints and building inflationary pressures. In these circumstances, the FOMC agreed on a ½ percentage point increase in the federal funds rate, and the Board of Governors approved an equal increase in the discount rate.

During the remainder of the winter and through the spring, incoming data signaled that economic growth was finally moderating. At first, it was unclear if the slowdown was temporary or if it was a lasting shift toward a sustainable rate of economic expansion in the neighborhood of the economy's potential. Adding to the uncertainty was a pickup of consumer price inflation and a pronounced weakening in the foreign exchange value of the dollar. At the March meeting, the FOMC determined that it would be prudent to await further information before taking any additional policy actions, but it alerted the Manager of the System Open Market Account that, if intermeeting action were to be required, the step would more likely be to firm than to ease.

By the May meeting, substantial evidence had accumulated that the threat of rising inflation had lessened. Economic growth had slowed; although the

The Discount Rate and Selected Market Interest Rates



Note. Dotted vertical lines indicate days on which the Committee announced a monetary policy action. Asterisks indicate days on which the FOMC held scheduled meetings.

adjustment to inventory imbalances that had developed earlier in the year was contributing to the slowdown, the underlying trajectory of final sales was still uncertain. The FOMC determined that the existing stance of policy was appropriate and expressed no presumption as to the direction of potential policy action over the intermeeting period, issuing a symmetric directive to the Account Manager.

Intermediate- and long-term interest rates had fallen throughout the winter and spring, as evidence accumulated that the expansion of economic activity was slowing and that inflationary pressures were ebbing. Furthermore, budget discussions in the Congress seemed to foreshadow significant fiscal restraint over the balance of the decade, putting additional downward pressure on these rates. Short-term rates had declined less, but in late spring, financial market participants had begun to anticipate an easing of monetary policy. By midyear, the three-month Treasury bill rate had declined about $\frac{1}{4}$ percentage point from its level at the beginning of the year, while rates on securities with maturities greater than one year had dropped as much as 2 percentage points.

Employment data released shortly after the May FOMC meeting were surprisingly weak, and by the July meeting it appeared that growth of aggregate output had sagged markedly during the second quarter as businesses sought to keep inventories from rising to undesirable levels. This deceleration of output growth was accompanied by a softening of industrial prices and a marked reduction in the pace at which materials prices were rising. With the economy growing more slowly than had been anticipated and potential inflationary pressures receding, the FOMC voted to ease reserve pressures slightly with a $\frac{1}{4}$ percentage point decline in the intended federal funds rate.

Although financial market participants had anticipated a decline in the federal funds rate at some point, bond and equity markets rallied strongly immediately after the change in policy was announced. However, a pickup in economic growth during the summer made further reductions in the funds rate appear less likely, and interest rates backed up for a time.

The Committee did keep rates unchanged at the August and September meetings. Although inflation had improved, the slowdown had been anticipated to a considerable extent. Moreover, uncertainties about federal budget policies and their effects on the economy remained substantial.

At the November meeting, the economic signals were mixed. Anecdotal information tended to suggest

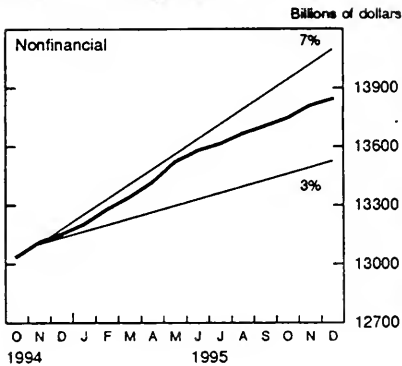
a softening in spending after the third quarter, but the extent of any slowing of spending and inflation was unclear. Although short-term rates remained above long-term averages on a real, inflation-adjusted basis, substantial rallies in bond and stock markets were thought likely to buoy spending. Against this backdrop, the FOMC voted to maintain the existing stance of monetary policy.

The generally positive news about inflation and hopes for a budget agreement had helped propel the bond market higher throughout the fall. By the December meeting, intermediate- and long-term interest rates were $1\frac{3}{4}$ to $2\frac{1}{2}$ percentage points below their levels at the beginning of the year. The bond market rally, along with strong earnings reports, pushed equity prices higher during the year, and by mid-December, equity price indexes were up about 35 percent from levels at the beginning of the year. Since the last easing in July, inflation had been somewhat more favorable than anticipated, and the expansion of economic activity had moderated substantially after posting a strong third quarter. With both inflation and inflation expectations more subdued than expected, and with the slowing in economic growth suggesting that price pressures would continue to be contained, the FOMC decided to reduce the intended federal funds rate an additional $\frac{1}{4}$ percentage point, bringing it to $5\frac{1}{2}$ percent.

The data available at the time of the FOMC meeting in late January gave stronger evidence of slowing economic expansion. This development reduced potential inflationary pressures going forward and raised questions about whether monetary policy might unduly restrain the pace of expansion. The Committee believed that a further slight easing in monetary policy was consistent with keeping inflation contained and fostering sustainable growth, given that price and cost trends were already subdued. In these circumstances, the Committee lowered the intended federal funds rate $\frac{1}{4}$ percentage point, to $5\frac{1}{4}$ percent, and the Board approved an equivalent reduction in the discount rate, to 5 percent.

Partly as a consequence of the System actions in December and January, short- and intermediate-term interest rates have fallen $\frac{1}{4}$ to $\frac{1}{2}$ percentage point since mid-December. However, on balance, longer-term rates are unchanged to a little higher. The absence of a firm agreement to reduce the federal budget deficit, and some tentative signs most recently that the economy might not be so sluggish as some market participants had feared, have held up longer-term rates.

Debt: Annual Range and Actual Level



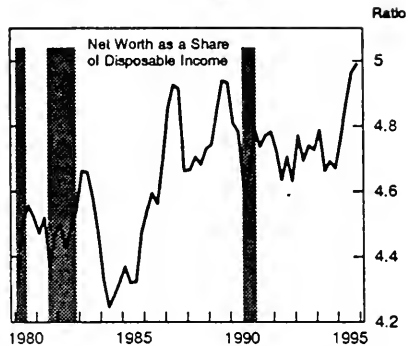
Credit and Money Flows

On balance in 1995, the debt of the domestic nonfinancial sectors grew at about the same pace as in the previous year, although within the year, debt growth was much stronger in the first half than in the second. Credit supplies remained plentiful: Banks continued to be willing lenders, and in securities markets most interest-rate spreads remained quite narrow. Debt burdens for households increased, but except for a few types of consumer credit obligations, delinquency rates remained at low levels. Rising equity prices bolstered the overall financial condition of households.

Federal debt rose 3¼ percent in 1995, slightly less than in 1994. The federal government's demands for credit fell largely because the budget deficit shrank about 20 percent for the calendar year. Federal debt growth also slowed toward year-end as the Treasury drew down its cash balance to keep borrowing within the \$4.9 trillion debt ceiling.

State and local government debt fell 5½ percent—more than in 1994. A few years earlier, municipalities had taken advantage of low long-term rates to pre-refund a substantial volume of issues, many of which were eligible to be called in 1995. As those securities were called, and with gross issuance light, the stock of municipal securities contracted for a second consecutive year. Despite the overall reduction in debt outstanding, the ratios of tax-exempt to taxable yields jumped in the first half of the year and, for long-term debt, held at an elevated level during the remainder of the year. This increase was associated with concerns about the effect on demands for tax-free municipal

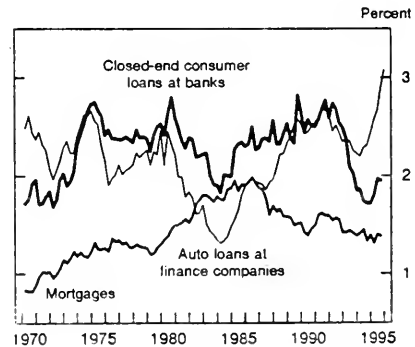
Household Financial Condition



debt of proposals for changes in federal taxation that would sharply reduce the tax advantages of holding municipal bonds.

Household borrowing remained robust in 1995, moderating only a bit from 1994, and the ratio of household debt to disposable personal income rose further. Even so, the financial condition of this sector remained good on balance, although there were signs of deterioration. The rally in the domestic equity markets supported household balance sheets by boosting net worth sharply. In addition, delinquency rates on home mortgages and closed-end consumer loans at banks, while rising, remained at low levels. Other indicators, however, provided evidence that some households were likely beginning to experience increased financial pressures. For instance, delinquency rates on credit card debt held by banks and on

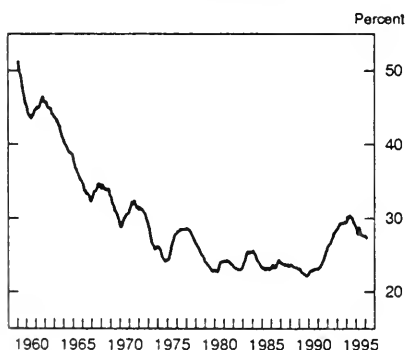
Delinquency Rates on Household Loans



auto loans booked at captive finance companies rose sharply. Furthermore, the average household debt service burden—calculated as the share of disposable income needed to meet required payments on mortgage and consumer debt—continued to rise last year. This measure of debt burden has now reversed about one-half of the decline it posted earlier in the decade.

The average debt service burden of nonfinancial corporations—the ratio of net interest payments to cash flow—also rose last year, but it remained well beneath the most recent peak reached in 1990. The increase in debt burden was in part associated with the relatively strong growth of the debt of nonfinancial businesses. This sector's debt growth was especially robust early in the year, when business fixed investment picked up further and inventory accumulation was rapid. Debt issuance was also boosted by the rising wave of mergers, although a good number involved stock swaps. Financing needs fell back later on as investment growth slowed and profits increased. Funding patterns also shifted as bond yields fell, and firms relied more heavily on longer-term debt. Despite the increase in credit demands, interest rate spreads of investment-grade private securities over comparable Treasuries widened only slightly and remained narrow by historical standards, suggesting that lenders continued to view balance sheets of nonfinancial corporations as remaining healthy on the whole. Spreads on below-investment-grade debt rose more sharply but stayed well beneath levels reached early in the decade.

Securities as a Percent of Bank Credit



Commercial banks met a significant portion of the increase in business credit demands last year, which, in turn, contributed to the rapid expansion of bank

Distribution of Bank Assets by Capital Status

Percent of industry assets

	1990:Q4	1995:Q3
Under Capitalized	31.3	.5
Adequately Capitalized	38.6	2.9
Well Capitalized	30.1	96.6

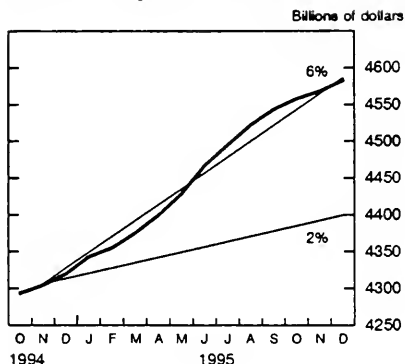
Note. Adjusted for examiner ratings.

balance sheets. Banks funded a portion of the loan increase by reducing their securities holdings, although higher market prices of securities and off-balance sheet contracts left reported securities holdings slightly higher for the year. In fact, bank security holdings relative to the size of their balance sheets remained elevated and, together with banks' strong capital positions, indicated that late in the year banks were well positioned to continue accommodating the credit demands of households and businesses. Although qualitative information suggested that banks were no longer reducing the standards businesses needed to meet to qualify for loans, some easing of credit terms continued, with interest-rate spreads on business loans narrowing further. Growth of real estate loans held by banks slowed over the year as the share of fixed-rate mortgages in total originations rose with the decline in long-term rates. Banks tend to securitize fixed-rate mortgages more than adjustable-rate loans. Consumer loans on the books of banks began the year growing at very high rates; this growth decelerated throughout 1995 as the volume of securitization increased. In response to rising delinquency rates, some banks tightened terms and standards for consumer loans toward the end of 1995 and early 1996.

Total assets of thrift institutions are estimated to have risen slightly last year. Growth at healthy thrifts more than offset a substantial transfer of thrift assets to commercial banks through mergers. The revival of growth in thrift assets, along with the strong showing of bank credit, helped to nudge up depository credit as a share of domestic nonfinancial debt for the second straight year after fifteen years of declines. Banks and thrifts still account for more than one-third of all credit to nonfinancial sectors.

Banks and thrifts funded a large share of their asset growth with deposits, and M3 grew 6 percent. The non-M2 portion of M3 was especially strong, in part

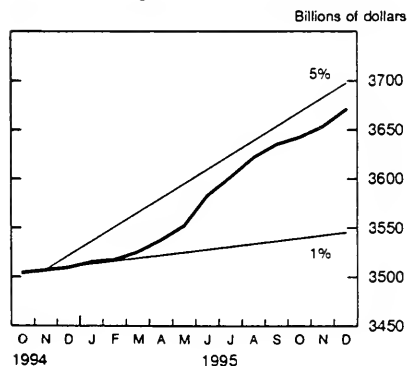
M3: Actual Range and Actual Level



as depository institutions substituted large time deposits for nondeposit sources of funds. The sharp reduction in deposit insurance premiums, which made large time deposits a more attractive source of funds, probably contributed to this shift. Late in the year, branches and agencies of Japanese banks, facing some resistance in U.S. funding markets, ran off time deposits while continuing to increase their funding from overseas offices.

M2 rose as lower market interest rates and a flatter yield curve increased the relative attractiveness of retail deposits. As is typical, deposit interest rates, and to a lesser extent returns on money market mutual funds, adjusted slowly to declines in market rates last year. Falling interest rates for comparable maturity

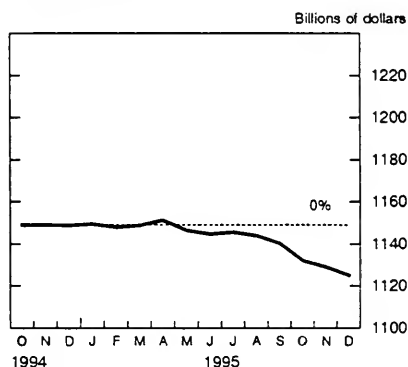
M2: Actual Range and Actual Level



market instruments were not the whole story for the growth of M2, however. As the yield curve flattened, the relative gains from holding longer-term assets with less certain price behavior fell and probably strengthened household demand for components of M2. Even so, M2 velocity was about unchanged after having increased for four years.

M1 fell almost 2 percent in 1995, the first annual decline since the beginning of the Board's official series in 1959. Sweeps of deposits from reservable checking accounts, a component of M1, to nonreservable money market deposit accounts were a major influence. Without these sweeps, M1 would have risen 1 percent. By the end of last year, sweeps had spread to thirty-two bank holding companies, and the initial amounts swept by these programs totaled \$54 billion. The corresponding decline of more than \$5 billion in required reserves largely showed through

M1: Actual Level



to reserve balances maintained at Federal Reserve Banks. As banks continue to introduce retail sweep programs in the future, the aggregate level of required reserve balances will tend to fall further. Although it has not happened yet, one possible consequence of the declining required reserve balances is greater instability in the aggregate demand for reserves and in overnight interest rates. In 1991, following the cut in reserve requirements at the end of 1990, unusually low levels of required reserve balances were associated with greater variability in the federal funds rate, as banks' volatile clearing needs began to dominate the demand for reserves, making daily reserve demand more difficult to estimate.

The runoff in reserve balances held down the growth of the monetary base to 4 percent in 1995. In addition, currency growth slowed, primarily owing to reduced shipments abroad. Foreign demand moderated with the stabilization of financial conditions in some countries where dollars circulate widely. Indeed, reduced demands from abroad contributed to a rare decline in the currency component of M1 this past summer, the first decrease since the early 1960s. The demand for existing Federal Reserve notes also slackened in anticipation of the introduction of a newly designed \$100 bill that will be harder to counterfeit.

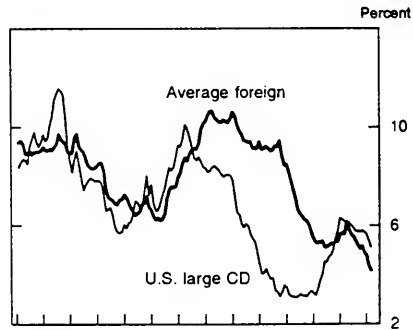
Foreign Exchange Developments

The weighted-average foreign exchange value of the dollar in terms of the other G-10 currencies declined about 5 percent on balance last year. The dollar fell sharply through April and reached a low almost 10 percent below its value at the end of 1994. The downward pressure against the dollar was sparked by indications of some slowing of the pace of U.S. real output growth, which contributed to expectations that further increases in U.S. interest rates were unlikely, and by the acrimony surrounding the ongoing trade dispute between the United States and Japan. The crisis in Mexico also weighed on the dollar. On several occasions in March and early April the Trading Desk at the New York Federal Reserve Bank, joined by some other central banks, intervened to buy dollars on behalf of the

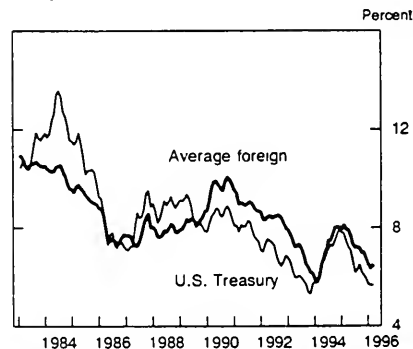
Treasury and the Federal Reserve System in an effort to counter the pressure for dollar depreciation.

The release by the G-7 officials of the communique from their meeting in late April supporting an orderly reversal of the dollar's decline and the signing of a trade agreement between the United States and Japan at the end of June helped to stabilize the dollar, which fluctuated narrowly until early August. The dollar then rebounded somewhat and remained within a narrow range through the end of the year. The recovery of the dollar stemmed, in part, from perceptions that its earlier decline, particularly in terms of the yen, had been excessive in light of the underlying fundamentals. Moreover, weakness in the economies of some other major industrial countries began to emerge, reducing prospective returns available

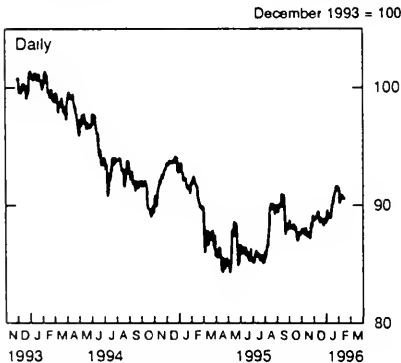
U.S. and Foreign Interest Rates
Three-month



Ten-year



Weighted Average Foreign Exchange Value
of the U.S. Dollar



Note. Index of weighted average foreign exchange value of U.S. dollar in terms of currencies of the other G-10 countries. Weights are based on 1972-76 global trade of each of the foreign countries

Note. Average foreign rates are the trade-weighted average, for the other G-10 countries, of yields on instruments comparable to U.S. instruments shown. The data are monthly.

abroad. At times from May through August, the Trading Desk again entered the market in conjunction with other central banks to intervene in support of the dollar, reinforcing the view that U.S. authorities were committed to a strong dollar.

In all of the major foreign industrial countries, long-term interest rates declined during 1995, nearly reversing the increases that had occurred during the previous year. On average, rates on foreign government issues with maturities of ten years fell about 150 basis points in the twelve months to December, somewhat less than the decline that occurred in the comparable U.S. rate. In Canada, where economic activity slowed sharply, the drop in long-term rates nearly matched that in the United States, while in Italy, where political uncertainty remained a concern throughout the year, rates fell only 100 basis points. During the first few weeks of this year, long-term rates abroad generally moved down somewhat more, but then most recently returned to their December average levels. An important exception is Japan, where rates have risen from their late-December levels, apparently reflecting market perceptions that the stage is set for a Japanese economic recovery. Short-term market rates in the major foreign industrial countries were mixed, but on average rates moved down.

On balance, the dollar depreciated about 8 percent in terms of the German mark during 1995 and by similar amounts in terms of most other currencies participating in the Exchange Rate Mechanism of the European Union. After substantial depreciation against the mark early in the year, the dollar stabilized

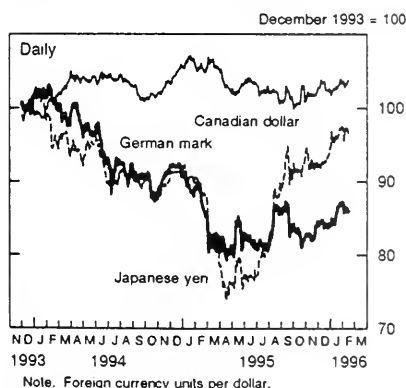
and then partly recovered as economic indicators revealed significant softening in economic activity in Germany. Easing by the Bundesbank during the second half of the year reinforced the view that mark interest rates were not likely to rise and might fall further. The dollar depreciated slightly, on balance, in terms of the Canadian dollar, despite periods of selling pressure on the Canadian dollar during the year related to Canada's fiscal situation and possible secession by Quebec.

Although the dollar did fall to a record low, below 80 yen to the dollar in mid-April, by year-end the dollar had appreciated slightly in terms of the yen from its level at the end of 1994. So far this year, the dollar has appreciated somewhat further against the yen. Resolution of the trade dispute and repeated episodes of exchange market intervention by the Bank of Japan, sometimes in conjunction with U.S. and foreign monetary authorities, contributed to the appreciation of the dollar in terms of the yen during the second half of the year. However, the fundamental cause of the yen's decline during that period probably was the easing of monetary policy by the Bank of Japan that pushed short-term market interest rates to extremely low levels.

In terms of the Mexican peso, the dollar appreciated sharply from the onset of the crisis in late December 1994 to March. The dollar subsequently retraced some of those gains, and the peso-dollar rate fluctuated narrowly through the middle of the year. Uncertainty about the prospects for Mexican economic performance and macroeconomic policy sparked renewed appreciation of the dollar in terms of the peso in November. Since November, data indicating that the decline in Mexican real economic activity may have ended, some intervention by the Bank of Mexico in support of the peso, and a perception that the decline in the peso may have gone too far given the underlying fundamentals have contributed to some rebound of the peso. During the year, the Mexican authorities drew \$3 billion on short-term swap lines with the Federal Reserve and Exchange Stabilization Fund (ESF) of the U.S. Treasury and \$10.5 billion on a medium-term swap facility provided by the ESF. By the end of January 1996, the short-term drawings had been entirely repaid.

Adjusted for relative consumer price inflation, the dollar was little changed, on balance, against a multilateral-trade-weighted average of the currencies of eight developing countries that are important U.S. trading partners. The dollar's 30 percent real appreciation against the Mexican peso was about offset by real depreciations against the other seven currencies.

Foreign Exchange Value of the Dollar in Terms of Selected Currencies





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Growth of Money and Debt
Percent

Period	M1	M2	M3	Domestic Nonfinancial Debt
<i>Year¹</i>				
1980	7.5	8.7	9.6	9.5
1981	5.4 (2.5) ²	9.0	12.4	10.2
1982	8.8	8.8	9.7	9.8
1983	10.3	11.8	9.5	11.9
1984	5.4	8.1	10.8	14.6
1985	12.0	8.6	7.7	14.3
1986	15.5	9.2	9.0	13.3
1987	6.3	4.2	5.9	9.9
1988	4.3	5.7	6.3	9.0
1989	.5	5.2	4.0	7.8
1990	4.2	4.1	1.8	6.8
1991	7.9	3.1	1.2	4.6
1992	14.3	1.8	.6	4.7
1993	10.5	1.4	1.0	5.2
1994	2.4	.6	1.6	5.2
1995	-1.8	4.2	6.1	5.3
<i>Quarter (annual rate)³</i>				
1995:Q1	-.1	1.4	4.8	5.3
Q2	-.5	4.3	6.7	7.0
Q3	-1.5	7.0	8.0	4.6
Q4	-5.1	4.0	4.4	3.9

1. From average for fourth quarter of preceding year to average for fourth quarter of year indicated.

2. Adjusted for shifts to NOW accounts in 1981.

3. From average for preceding quarter to average for quarter indicated.

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